DOCUMENT RESUME

ED 243 763 SO 015 600

TITLE Handbook on Australia.
INSTITUTION Texas Education Agency, Austin.
PUB DATE Apr 84
NOTE 109p.
PUB TYPE Guides - Classroom Use - Materials (For Learner) (051) -- Historical Materials (060)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Area Studies; Art; *Cross Cultural Studies; Cultural Context; Culture; Economics; Education; Ethnic Groups; Federal Government; Foreign Countries; Government (Administrative Body); Instructional Materials; International Relations; Legal Education; National Defense; Population Education; Religion; Resources; Secondary Education; Social History; *Social Studies
IDENTIFIERS Aboriginal People; *Australia; States; World War I; World War II

ABSTRACT

A study unit on Australia for secondary students is divided into eight sections. Section 1 introduces students to the states, territories, and capitals of the country. Section two, land and people, discusses the size, location, geology, climate, flora and fauna, and population of Australia. Sections 3 and 4 outline Australian history and include discussion of discovery, exploration, colonization, self-government, independence, the World Wars, the 1980's, and defense. Section 5 describes the federal government and legal system. Each of Australia's eight territories and states are examined in section 6. Economic development, resources, and international trade are the focus of section 7. The final section on culture and society focuses on education, religion, the arts, media, and recreation. Each section consists of readings, maps, and illustrations. Appendices contain a decade by decade summary of Australian history, a timeline of important events, a newspaper article on gold, an article on an Australian gas field, and a 6-page bibliography of publications, government addresses, and aboriginal addresses. (LP)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED243763

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Linda Kemp

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

HANDBOOK
ON
AUSTRALIA

After the original free distribution to authorized institutions, additional copies may be purchased for $2.00 by contacting the Publications Distribution Office, Texas Education Agency. With the increasing demand for educational material, however, the supply at times may be exhausted.

This Texas Education Agency publication is not copyrighted. Any or all sections may be duplicated.

TEXAS EDUCATION AGENCY
201 EAST 11th STREET
AUSTIN, TEXAS 78701

1984

SO 015 600

STATE BOARD OF EDUCATION
(State Board for Vocational Education)

JOE KELLY BUTLER, Houston
Chairman of the State Board of Education
Congressional District 7

PAUL MATHEWS, Greenville
Vice Chairman of the State Board of Education
Congressional District 4

WAYNE WINDLE, El Paso
Secretary of the State Board of Education
Congressional District 16

Board Members

VOLLY BASTINE, JR., Houston
Congressional District 18

MRS. MARY HELEN BERLANGA, Corpus Christi
Congressional District 27

MANUEL B. BRAVO, JR., Laredo
Congressional District 23

WILLIAM HUGH BYRD, Duncanville
Congressional District 6

DON H. COOK, D.D.S., Mesquite
Congressional District 5

VIRGINIA CURREY, PH.D., Arlington
Congressional District 24

WILL D. DAVIS, Austin
Congressional District 10

MIKE FERNANDEZ, JR., San Antonio
Congressional District 20

W. H. FETTER, La Marque
Congressional District 9

WAYNE FREDERICK, Orange
Congressional District 2

E. R. GREGG, JR., Jacksonville
Congressional District 1

KENT GRUSENDORF, Arlington
Congressional District 26

MRS. JEWELL HARRIS, Abilene
Congressional District 17

RUBEN E. HINOJOSA, Mercedes
Congressional District 15

J. MURPHY HORTON, Midland
Congressional District 21

MRS. LINDA HOWELL, Missouri City
Congressional District 22

WILLIAM N. KEMP, O.D., Houston
Congressional District 8

MRS. MARY ANN LEVERIDGE, East Bernard
Congressional District 14

H. REGINALD McDANIEL, M.D., Dallas
Congressional District 3

PAUL M. STEVENS, Fort Worth
Congressional District 12

CARROLL TEAGUE, Pasadena
Congressional District 25

MRS. LAURA TYNES, Waco
Congressional District 11

MRS. MARGE WEST, Amarillo
Congressional District 13

JAMES H. WHITESIDE, Lubbock
Congressional District 19

RAYMON L. BYNUM, Commissioner of Education
(Executive Officer of the State Board of Education)

Committees
of the
State Board of Education

Internal Rules Committee
JAMES H. WHITESIDE, Chairman
LAURA TYNES, Co-Chairman

Rules, Budget, and Finance
E. R. GREGG, Chairman
WILL D. DAVIS, Co-Chairman

Special Populations
DON H. COOK, Chairman
RUBEN E. HINOJOSA, Co-Chairman

Vocational Education and High Technology
WAYNE FREDERICK, Chairman
CARROLL TEAGUE, Co-Chairman

Investment of the Permanent School Fund
WILLIAM H. FETTER, Chairman
PAUL STEVENS, Co-Chairman

Instruction, Research, and Evaluation
MARY ANN LEVERIDGE, Chairman
WILLIAM BYRD, Co-Chairman

Teacher Preparation, Support Services, and Litigation/Appeals
WILLIAM N. KEMP, Chairman
VOLLY C. BASTINE, Co-Chairman

Select Committee on Public Education
JOE KELLY BUTLER
WILL D. DAVIS
E.R. GREGG

TEXAS EDUCATION AGENCY

This publication was developed by TEA staff members in the Office of the Deputy Commissioner for Planning, Research, and Curriculum.

THOMAS E. ANDERSON, JR., Deputy Commissioner
for Planning, Research, and Curriculum

VICTORIA BERGIN, Associate Commissioner
for General Education

LEROY F. PSENCIK, Director
Division of Curriculum Development

Social Studies

LOUIS GRIGAR
Director

DORRIS KETTEMAN
Education Specialist

ELVIN TYRONE
Education Specialist

PAT FOLMAR ROBINSON
Educational Writer

FOREWORD

The handbook was written by Michael Bradley of Darwin, Australia, while he was a foreign curriculum consultant of the Texas Education Agency during the 1981-82 school year. Mr. Bradley is senior education advisor, Social and Cultural Education, Northern Territory Department of Education. Bradley was at the Agency under Public Law 87-256, the Mutual Educational and Cultural Exchange Act of 1961. One of his duties was the development of publications about Australia that would be of use to Texas educators and students.

Raymon L. Bynum
Commissioner of Education

CONTENTS

INTRODUCTION 1
States, Territories, and Capitals. Conversion Table.

THE LAND AND ITS PEOPLES 5
Size and Location. Geological Development. Climate. Vegetation. Native Fauna. The Aborigines. Peopling the Continent.

THE HISTORY OF AUSTRALIA TO 1901 31
European Discovery and Colonization. The First 40 Years. Development of Self-Government in the Colonies. Early Inland Exploration. From Colonial Status to National Independence.

THE HISTORY OF AUSTRALIA TO THE 1980s 43
Early Years of the Commonwealth. Australia and World War I. Interwar Years. Australia and World War II. Post World War II Years. The 1980s. Defense.

HOW AUSTRALIA IS GOVERNED 53
The Federal System. The Legal System.

THE STATES AND TERRITORIES 61
Western Australia. South Australia. Victoria. Tasmania. Australian Capital Territory. New South Wales. Northern Territory. Queensland.

THE AUSTRALIAN ECONOMY: A SURVEY 73
Economic Development. International Trade. Rural Industry. Manufacturing Industries. Energy Resources. Mineral Deposits.

AUSTRALIAN CULTURE AND SOCIETY 83
Education. Religion. Symbols. The Arts. Media. Sports. Parks and Reserves.

APPENDIX A Australia Decade by Decade: A Summary 95
APPENDIX B Timeline of Important Events 99
APPENDIX C Gold 101
APPENDIX D The Loneliest Gas Field in the World 104
APPENDIX E Bibliography 106
APPENDIX F Selected Addresses 108
APPENDIX G Aboriginal Addresses 109

INTRODUCTION

Australia is the land of sheep, the Aborigine, the Koala, the Kangaroo, Ayers Rock, and the Great Barrier Reef. Australia is all this and much more. It is a land of deserts contrasting with snow fields; a land where most people live in large cities within 15 kilometers of the coast. It is a land of over 100 different nationalities.

Australia comprises six states and two territories. These states and territories, with their respective capitals, are listed below and shown on Map 1.

State/Territory	Capital
Australian Capital Territory	Canberra (also, national capital)
Queensland	Brisbane
New South Wales	Sydney
Victoria	Melbourne
Tasmania	Hobart
South Australia	Adelaide
Western Australia	Perth
Northern Territory	Darwin

Because the metric system is used in Australia, measurements in this publication are expressed in metric terms. The table on page 2 may be used in converting to US equivalents. Also, following the metric style, groups of digits in this publication are separated by spaces, e.g., 37 000 kilometers, not 37,000 kilometers.

Conversion Table

METRIC	US EQUIVALENT		METRIC SYMBOL
Mass			
1 gram	0.0353	ounce	g
1 kilogram	2.20	pounds	kg
1 tonne	0.984	ton	t
Volume			
1 liter	1.056	quarts	L
1 cubic meter	35.3	cubic feet	m^3

Temperature

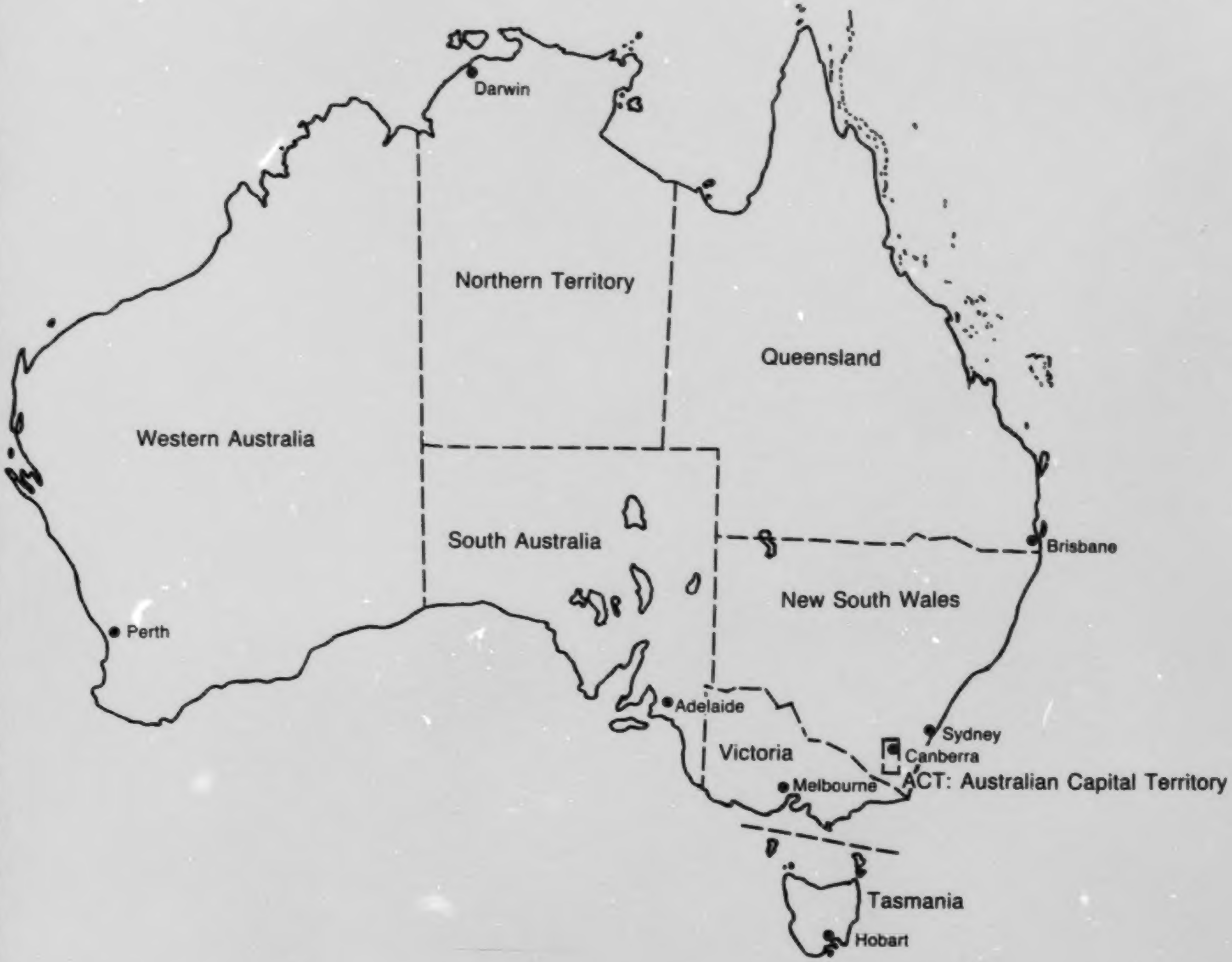
0 degrees Celcius (^{o}C) 32 degrees Fahrenheit (^{o}F)

To convert ^{o}C to ^{o}F and ^{o}F to ^{o}C, use the following formulas:

$$^{o}C = {}^{5}/9\ (^{o}F\ -32) \qquad ^{o}F = {}^{9}/5\ (^{o}C) + 32$$

Length			
1 millimeter	0.0394	inch	mm
1 centimeter	0.394	inch	cm
1 meter	3.28	feet or 1.09 yards	m
1 kilometer	0.621	mile	km
Area			
1 square meter	10.8	square feet	m^2
1 hectare	2.47	acres	ha
1 square kilometer	0.386	square miles	km^2

Map 1. States and territories with capital cities



THE LAND AND ITS PEOPLES

Size and Location

Australia is an island continent in the southern hemisphere. It is the only nation that occupies an entire continent. The area of the continent is about 6 percent of the land surface of the earth (excluding Antarctica).

To the north lies Indonesia and Papua New Guinea with the latter the closer at 139 kilometers across the Torres Strait from North Queensland. In all other directions lie great expanses of water (see Map 2). To the west is the Indian Ocean; to the south, the Southern or Antarctic Ocean; and to the east, the Tasman Sea and the South Pacific Ocean. From the Indian Ocean to the Tasman Sea is about 4000 kilometers. The north-south extent is 3180 kilometers at its greatest distance between Cape York in Queensland and Wilsons Promontory in Victoria. Connecting these points is a coastline of 36 735 kilometers.

An island continent, Australia has a state that is an island itself--Tasmania, off the south coast across the stormy and oil-rich Bass Strait.

Australia is as large as the continental United States. It is one and a half times the size of Europe, as shown on Map 3. Map 4 shows an upside-down Australia superimposed on the United States to illustrate the similarities in shape between the two.

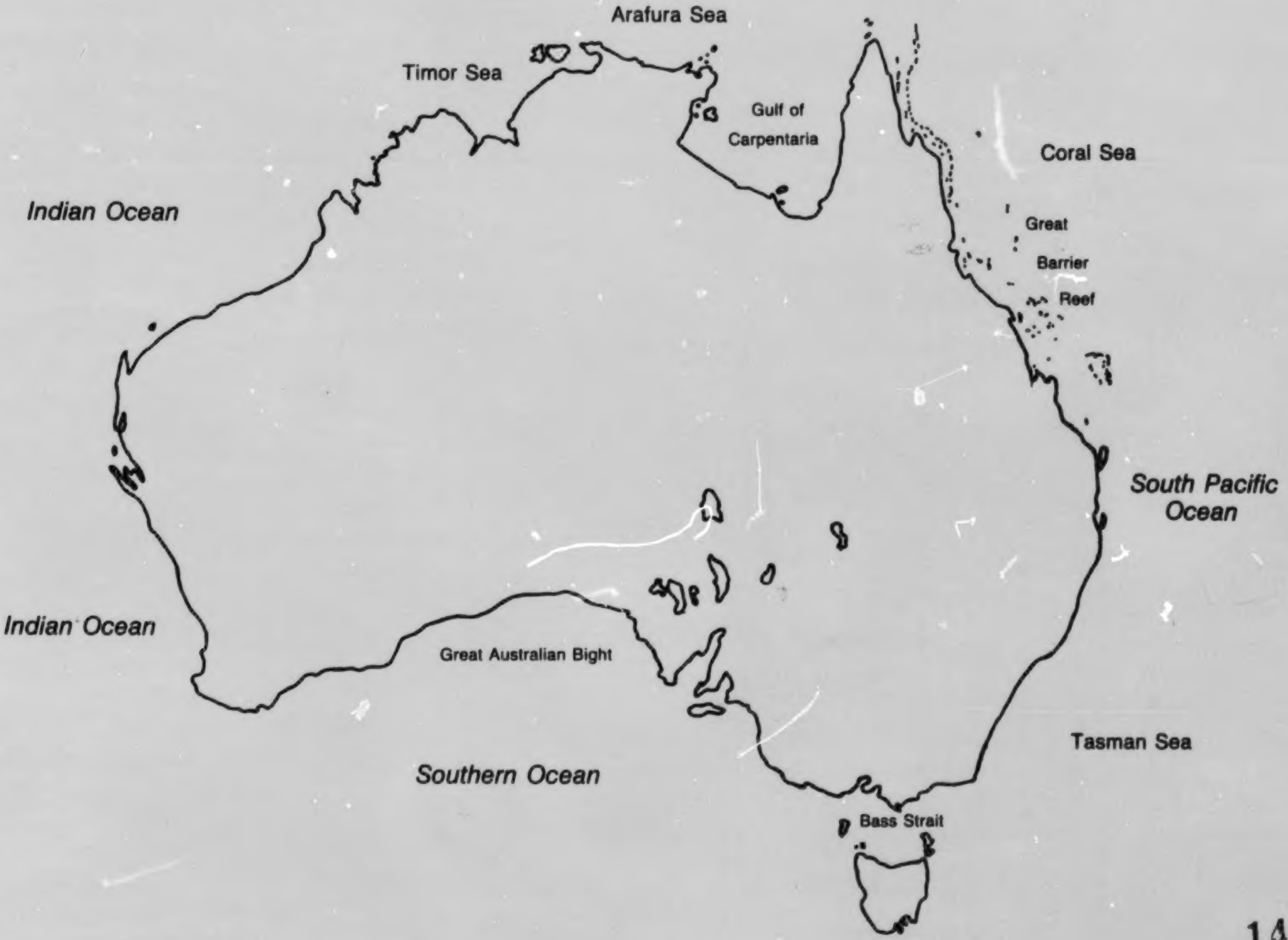
Because of its isolation from other continents, Australia is often termed the "hidden continent." This isolation was partially responsible for the continent's late discovery by Europeans.

The nearest continental land mass is Asia, 2900 kilometers to the northwest. To the east, over 2300 kilometers away, lies New Zealand. Beyond that, over 6000 kilometers farther east, is South America. Also across the Pacific, but to the northeast, sits North America, 12 900 kilometers away. To the west across 9500 kilometers of the Indian Ocean is Africa. To the south of the continent across 1700 kilometers of extremely cold Southern Ocean water is Antarctica. Map 5 shows Australia's location in the world.

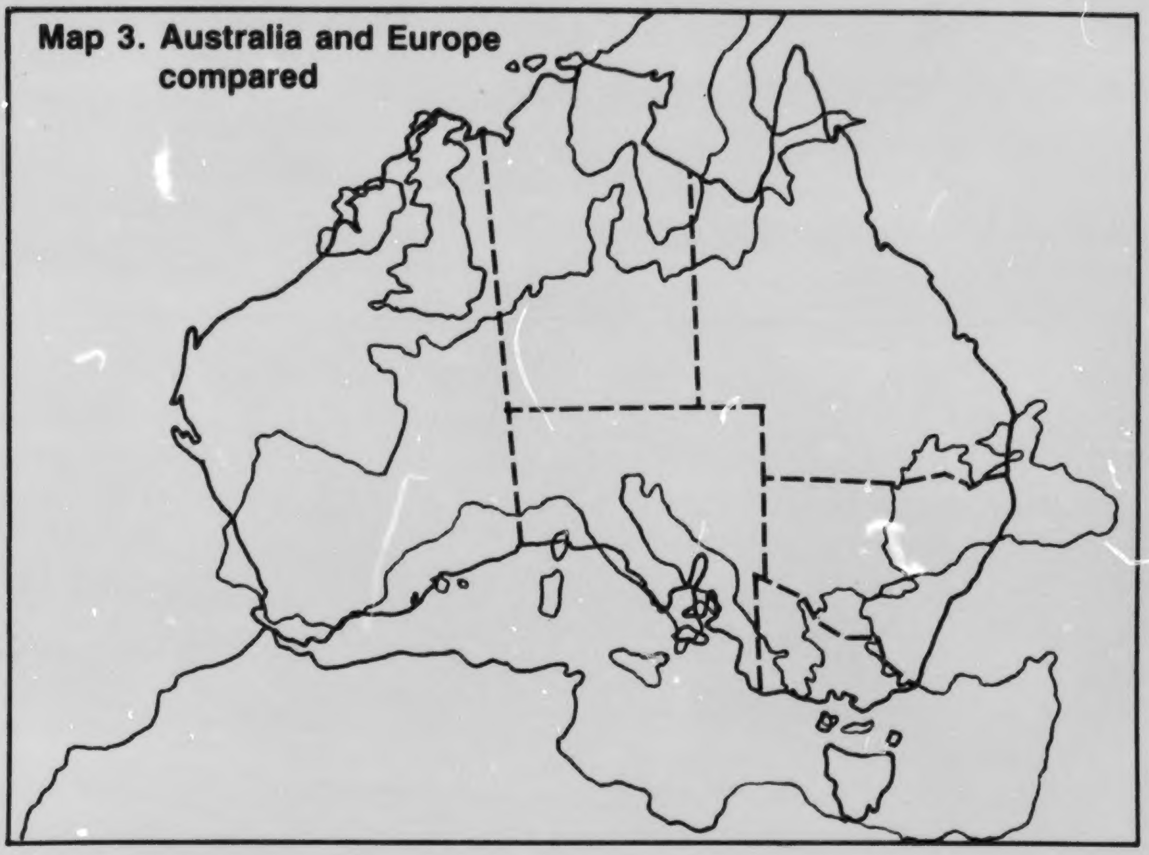
Australia is also known as the "land down under" because it lies entirely south of the equator. In fact, the name Australia comes from the Latin word "australis" which means southern.

In addition to its own six states and two territories, Australia is also responsible for several overseas territories. These are generally carry-overs from the British Empire and are unlikely to become nations in their own right. In the Indian Ocean lies Christmas Island. Nearby are the Cocos (Keeling Islands), the scene of a famous naval engagement in World War I. In the Tasman Sea, a one-hour flight east of Sydney, is Norfolk Island. This was a major penal settlement in the mid-19th century and is now a popular tourist center. Nearer Sydney is Lord Howe Island. To the south of the continent lies Macquarie Island which, although technically part of Tasmania, is far enough away to be included as a separate island. Beyond Macquarie on Antarctica lies the Australian Antarctic Territory, a claim inherited from Britain in 1933. The remaining external territories are the Heard and McDonald Islands close to Antarctica. If all the external territories were added to the mainland, the total area would exceed that of the United States, including Alaska.

Map 2. Seas around Australia

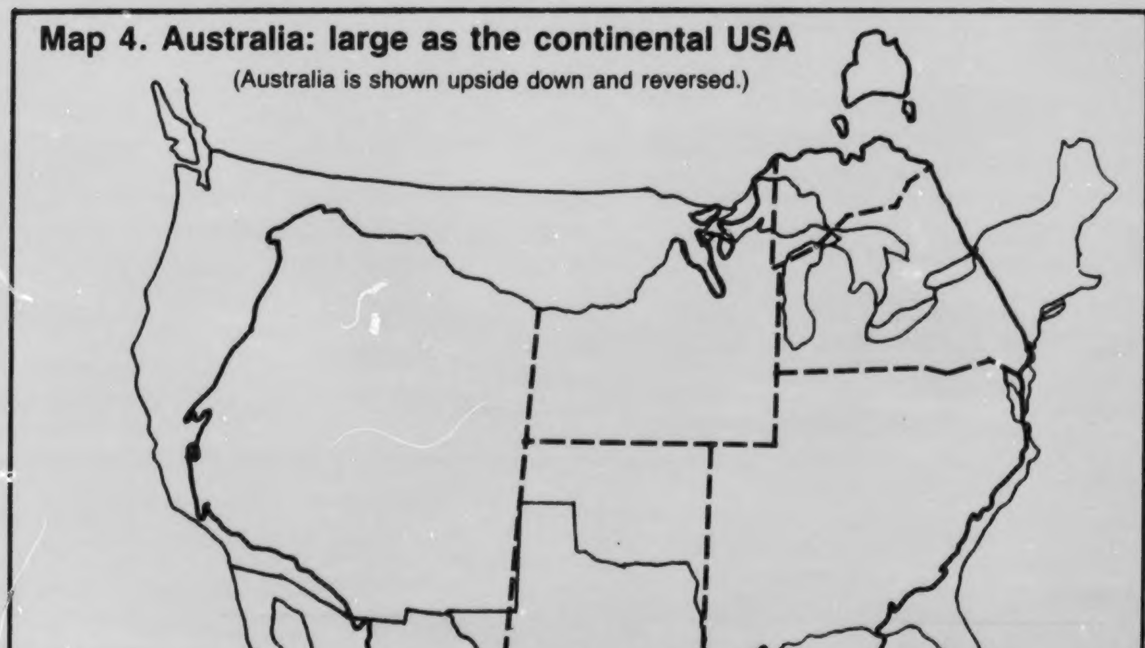


Map 3. Australia and Europe compared

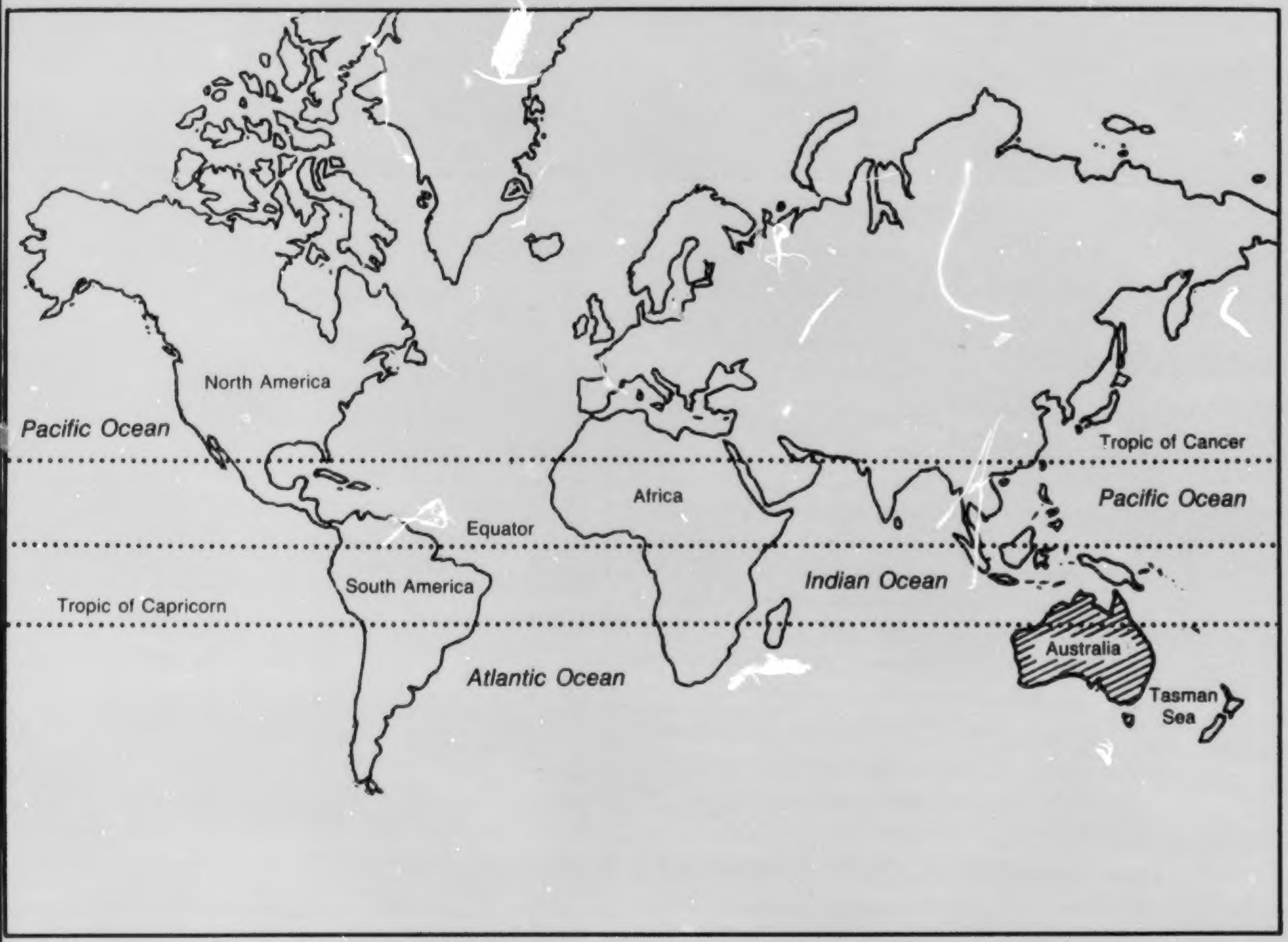


Map 4. Australia: large as the continental USA

(Australia is shown upside down and reversed.)



Map 5. Australia in the world



Geological Development

Australia is an ancient continent. The oldest earth rocks according to radiocarbon dating are about 3,600 million years old. Rocks of this age are found in Western Australia.

Over 200 million years ago, according to theory, all of the continents formed one supercontinent. This was called "Pangaea." Later, as a result of the internal mechanism of the earth as described in the Plate Tectonics (or continental drift) theory, Pangaea split into two land masses. The southern one was called Gondwanaland. It was made up of Australia, Africa, South America, India, and Antarctica.

About 130 million years ago, Gondwanaland began to divide, with India moving away. This was followed 40 million years later with a split between New Zealand and Australia. The sea that had covered much of Australia began to subside, and the present shape started to emerge. Around 53 million years ago two movements began to occur. A split occurred between Australia and Antarctica opening up the Southern Ocean. Australia moved northwest. At the same time, the plate containing New Zealand rotated counterclockwise partly closing the open Tasman Sea and pushing part of its floor below Australia. As a result, the Great Dividing Range of the east coast rose up. This formation forced many of the eastward flowing rivers to flow west, thus creating the Murray-Darling river system.

About 25 million years ago, the present shape of Australia was almost complete, but Antarctica was still close. Australia was moving north at about six centimeters a year; Antarctica was moving southward. The Tasman Sea, no longer compressed in the north, continued toward the south, resulting in the formation of the New Zealand Alps. About 18,000 years ago, Australia had almost arrived at its present position. At this time, there was a major ice age. In Australia, the area around Mt. Kosciusko and Tasmania was not covered. The shallow seas around the coast, particularly in the north, were dry. Theory holds that land bridges to the north enabled early humans to cross to the continent from Asia. With the ending of the ice age and the subsequent melting of the ice packs, these land bridges became submerged. As a result, Australia was cut off from the other continents about 8,000 years ago.

Parts of Australia have been dry land for over 130 million years. Most of the continent has been dry for at least 53 million years. Time and unrelenting forces of weathering and erosion have resulted in a wearing down of the continent. Thus, the continent is the world's flattest as well as its oldest. The mountains have been worn down. Vast plains and plateaus characterize the land with few areas above 500 meters. The highest point is Mt. Kosciusko in the southeast at 2228 meters.

Climate

Australia has a warm climate characteristic of a large land mass lying between 15 degrees and 35 degrees south of the equator. The interplay of major air masses varies through the year. This interplay, together with Australia's geographical location, results in a variety of climates.

Air Masses

Major air masses that affect Australia are:

equatorial
tropical maritime
tropical continental
southern continental
southern maritime
southern maritime modified
polar maritime
polar continental

Being in the southern hemisphere, Australia has seasons opposite those of nations in the northern hemisphere as shown below:

Australia	United States
summer	winter
autumn	spring
winter	summer
spring	autumn

The interplay of the air masses varies with the seasons. The equatorial air mass affects north Australia in summer and is linked to the northwest monsoon. It brings hot, humid air. This low pressure system generates from December to March; though not as strongly developed as the monsoon of Asia, it does bring heavy rainfall to the north. This time of year is known locally as "the wet." The rain rarely extends below the Tropic of Capricorn.

The tropical maritime air originates over the Coral and Arafur Seas and northern Indian Ocean. It is warm and moist and affects the north coasts of Queensland and Western Australia.

Tropical continental air over central Australia is extremely hot and dry in summer and can penetrate south producing heat wave conditions. In winter, the air mass is dry and much colder. The southern continental air mass is similar but cooler due to its southerly location.

The southern maritime air, including the modified subtypes, are cool, moist, westerly and southwesterly masses that bring cool changes to the south of the continent. The polar maritime and polar continental air masses occasionally reach southern Australia in winter. When they do, they bring very cold, moist air.

The boundary between two air masses is termed a "front." With the passage of a front, the pressure rises and temperatures drop. However, the severity of fronts in Australia is not as great as those in North America.

During the summer in the northern areas, tropical cyclones or hurricanes occur. These are intense low pressure systems. As Australia is in the southern hemisphere, winds blow clockwise. On the average, three Coral Sea and two Indian Ocean cyclones hit Australia each year. They are highly destructive and erratic in their movement. On Christmas Day 1974, a cyclone destroyed the northern city of Darwin.

Temperature

There are no extremes of temperature due to the lack of intense winter cold. The summer is hot with tropical Australia and central Australia being particularly affected. Summer temperatures are normally above 30 °C. Coastline areas are cooler as they are subject to the cooling influence of the ocean.

The winter is warm in the north, but the temperature drops 6 °C for every kilometer above sea level. The highlands of Tasmania, Victoria, and New South Wales are the only areas with snow. July is the coldest month; however, along the north coast, temperatures still reach 30 °C.

Precipitation

Australia is a very dry continent. More than half receives less than 300 millimeters of rain a year; a third, less than 200 millimeters. The Lake Eyre area has only 100 millimeters of rain a year on the average. Drought may prevail for many years only to be followed by localized flooding.

In western, southern, and northern Australia, rain is of the monsoonal type north above 20 degrees south latitude and Mediterranean type from 32 degrees south latitude. In between, the desert zone lies too far away from rain-bearing storms to benefit regularly in summer or winter.

In the four eastern states, rain patterns are more complex. In the tropical north, the southeast trade winds bring rain at all seasons. South of this area there is some summer rain; most of New South Wales and Victoria have an even distribution of rain throughout the year. However, on an average, the first half of the year is wet with autumn receiving the most rain.

Drought

Australian rainfalls are unreliable, particularly toward the center of the continent and the northern coasts of Western Australia and Queensland. High temperatures and lack of rainfall over much of the continent combine to produce frequent droughts. The most economically disastrous droughts for Australia were those of 1895-1903 and 1958-1968. The worst droughts occur in the center and in the northwest of the continent. In addition to rainfall deficiency, precipitation is lost through evaporation. Three-quarters of the total area of the continent has an evaporation rate greater than the total rain that falls on that area during all months of the year.

The following table shows climatic extremes of Australia:

Climatic Extremes

Highest temperature

Cloncurry, Qld: 53.1 °C January 13, 1889

Highest rainfall

Crohamhurst, Qld: 907 mm February 3, 1893

Strongest wind gust

Darwin, NT: Cyclone Tracy 217 km/h December 25, 1974

Greatest snowfall (annual)

Charlotte Pass, NSW: 7.9 m 1947

Lowest temperature

Charlotte Pass, NSW: -22.2 °C June 14, 1945 and July 22, 1947

No rainfall all year

Mulyie Station, WA: 1924

Longest heat wave

Marble Bar, WA: 160 days over 37.8 °C October 3, 1923-April 7, 1924
(world record)

Climate Zones

Arid Areas

The vast interior of Australia is a dry region. In the center are sub-tropical deserts. These include the Great Sandy and Gibson Deserts of Western Australia and the Great Victoria Desert straddling Western Australia and the Northern Territory. Summer temperatures are high everywhere in these areas. In most of the interior, the diurnal (difference between day and night) temperature range is great; during winter, both daytime and nighttime temperatures are low.

Semi-arid

Encircling the central desert areas are tropical and subtropical steppe areas. These have more rainfall than the dry interior. In the southwest, there is a pronounced dry summer season. Temperatures vary with latitude. The north remains relatively warm all year; in the south, there are four seasons with temperatures varying accordingly.

Tropical Savanna

A tropical savanna area spreads from Derby in Western Australia across Arnhem Land to the gulf country of Queensland. There are two distinct seasons; the wet and the dry. The wet, November to March, is a period of high humidity, high rainfall which falls in daily torrential downpours, high daytime temperature (around 31 °C), and a low diurnal range of about 4 °C. From March to November is the dry season. During this time, winds blow out to sea resulting in negligible rainfall, low humidity, high daily temperatures (around 30 °C), and an increased diurnal range (up to about 10 °C).

On the Queensland coast near Cairns is a remote tropical rain forest area. It is similar to the rest of the tropical savanna but has rainfall all year.

Mediterranean

The southwest area of Western Australia, in particular around Perth and the southern area of South Australia and Eastern Victoria, has characteristic Mediterranean-type climate: dry, warm summers and wet, cool winters. This is the result of the north-south movement of the prevailing westerlies and associated air masses. High sunshine hours are typical of the area. Perth, for example, has an average of 2,800 hours of sunshine a year.

Humid Subtropical

From Sydney north along the east coast is a subtropical area. This is a moist area with rainfall all year in the southern part and a dry winter toward the north. Temperatures vary according to the latitude but are generally warm. Offshore currents and coastal breezes modify temperature throughout the year. Toward the north, cyclonic storms sometimes occur producing heavy summer rains and flooding.

Marine Coast

Southern Victoria and Tasmania are milder parts of Australia. Here the westerlies prevail most of the year resulting in year-round precipitation, the greatest amount falling in winter. Temperatures are lower than those in the humid, subtropical region. They are are similar to areas of northwestern Europe and the Seattle-Vancouver area of North America. However, they are milder in winter.

Highland

The New England area to the Australian Alps area are the only parts of the Great Dividing Range that have sufficient elevation to be different from the typical climatic regions of the area. Some snow occurs as temperatures fall below 0 °C, but no snow prevails all year. Summers here are milder than those of the surrounding area.

Vegetation

Because of the climate in the desert areas, Australia has many drought-resistant plants. Small shrubs and stunted trees are common. After rare heavy rains, however, the desert blooms in a profusion of native flowers.

In semi-arid areas there are open woodlands with grasses. In the north of the east coast areas are pockets of tropical rain forest. In the south, as on Tasmania, are temperate rain forests.

The dominant tree is the eucalyptus. There are over 600 species of eucalyptus trees, called gum trees in Australia. They are evergreen hardwoods and range in size from 91 meters to low, widely separated shrubs.

Although much of the natural vegetation remains, large areas have been changed through farming. Many of the native trees have been felled and replaced by quick-growing pines from the northern hemisphere.

Some efforts have been made to protect areas of natural vegetation, but these efforts face major problems where the natural vegetation is either too expensive to maintain or is being removed for mining such as in the Karri forests of Western Australia.

Native Fauna

The kangaroo, koala, and wombat are well-known animal species of Australia. Indeed, most persons' concepts of Australia include impressions of the unique animals that live there.

The uniqueness of much of the wildlife is due to the physical isolation of Australia following the flooding of the island bridge between Australia and the Asian mainland thousands of years ago. This resulted in particular species developing unlike those elsewhere in the world. Many of these species flourished without being hindered by stronger species or by numerous humans.

The vertebrate fauna of Australia includes about 390 species of reptiles, about 700 species of birds, and about 230 species of land and freshwater animals. There are also whales, dolphins, the dugong (also known as sea cows), and seven species of seals.

The reptile population includes crocodiles, tortoises, turtles, lizards, and snakes. They are similar to the reptiles found in Asia except that some common water turtles of Asia are not found in Australia. There are no land turtles. The only reptile unique to Australia is the snake lizard.

In north Australia are two types of crocodiles: salt water and fresh water. Of 110 species of snakes, only a few are dangerous. The largest is the python which can grow more than eight meters in length.

There is an abundance of bird life in Australia. Most of the varieties found in the rest of the world are also found in Australia, including vultures, pheasants, finches, and woodpeckers. Distinctly Australian birds include the emu, which is the world's second largest living bird, and a multitude of parrots and cockatoos. There are nearly 300 species of pigeons and doves. Since the arrival of Europeans, no birds are known to have become extinct; however, the clearing of forests has restricted the range of several.

Mammals include two egg-laying types (monotremes): the platypus and the echidna (spiny anteater). There are also 110 types of marsupials (pouched animals). Included are kangaroos, wallabies, phascogales (marsupial mice and rats), cats, wombats, bandicoots, opossums, and the koala bear. There are also about 50 species of bats ranging in size from tiny ones with wingspans of a few centimeters to flying foxes with wingspans of a meter or more.

There are many types of kangaroos in Australia. Their size varies from large, red kangaroos (some two meters high) to small rat kangaroos. The red kangaroo inhabits the open plains. In many areas, it is regarded as a pest because it competes for food with grazing animals. Of the two grey kangaroo species, one is found in eastern Australia and the other in southern areas of Western Australia. In some places they, like the red kangaroo, are considered pests and are shot accordingly. Other kangaroo types include wallaroos and euros, ranging over most of the continent, and the antelopine kangaroo found in northern Australia.

Other mammals include the dingo, a wild dog which was probably introduced by the Aborigines. A variety of exotic animals include the rabbit, the hare, the water buffalo and wild Bali cattle in the Northern Territory, deer, camel, donkey, and the fox, introduced in 1800 for sporting purposes. Unfortunately, most of these have become destructive to the environment.

Competing with grazing animals for available feed, the rabbit has been a major pest since its first introduction in the mid-19th century. The rabbits rapidly spread and are now found in many areas. To combat them, rabbit-proof fences and poisons are used.

The seas around Australia include over 2,000 species of fish, including sharks and rays, that attract Japanese and Taiwanese commercial fishing expeditions. The Gulf of Carpentaria is a major shrimping area.

Of the invertebrates, there are destructive ants, termites, and locusts, as well as varieties of beautiful butterflies. Of the many different spiders, two are venomous. There are also numerous wasps, centipedes, and scorpions.

The Aborigines

We began with a dawning-Djuwari:
We were always here.
This place is our dreaming:
We neither changed it nor harmed it
But the world changed around us
Now we must start again.

Anonymous

The Aborigines settled Australia before the first humans arrived in the Americas and at least 25,000 years before the pyramids of Egypt were built.

A settlement of Aborigines at now extinct Lake Mungo (see Map 6) has been dated as 38,000 years old. Archeological evidence shows that the people there caught birds, fish, mammals, and freshwater shellfish. Burial remains indicate a complex society that possibly engaged in cremation.

At Fromm's Landing on the Murray River, another camping ground, carbon dating of charcoal indicates the area was used for almost 5,000 years. At Kenniff Cave in southern Queensland, charcoal has been dated indicating an occupancy of at least 16,000 years. Under the Nullarbor Plain, the Koonolda Cave indicates occupancy of 20,000 years.

In Western Australia, extensive investigations of the Devil's Lair rock shelter revealed occupancy for over 30,000 years. Two pieces of stone with engraved designs dating from 10,000 to 20,000 years ago and many stone tools have been found.

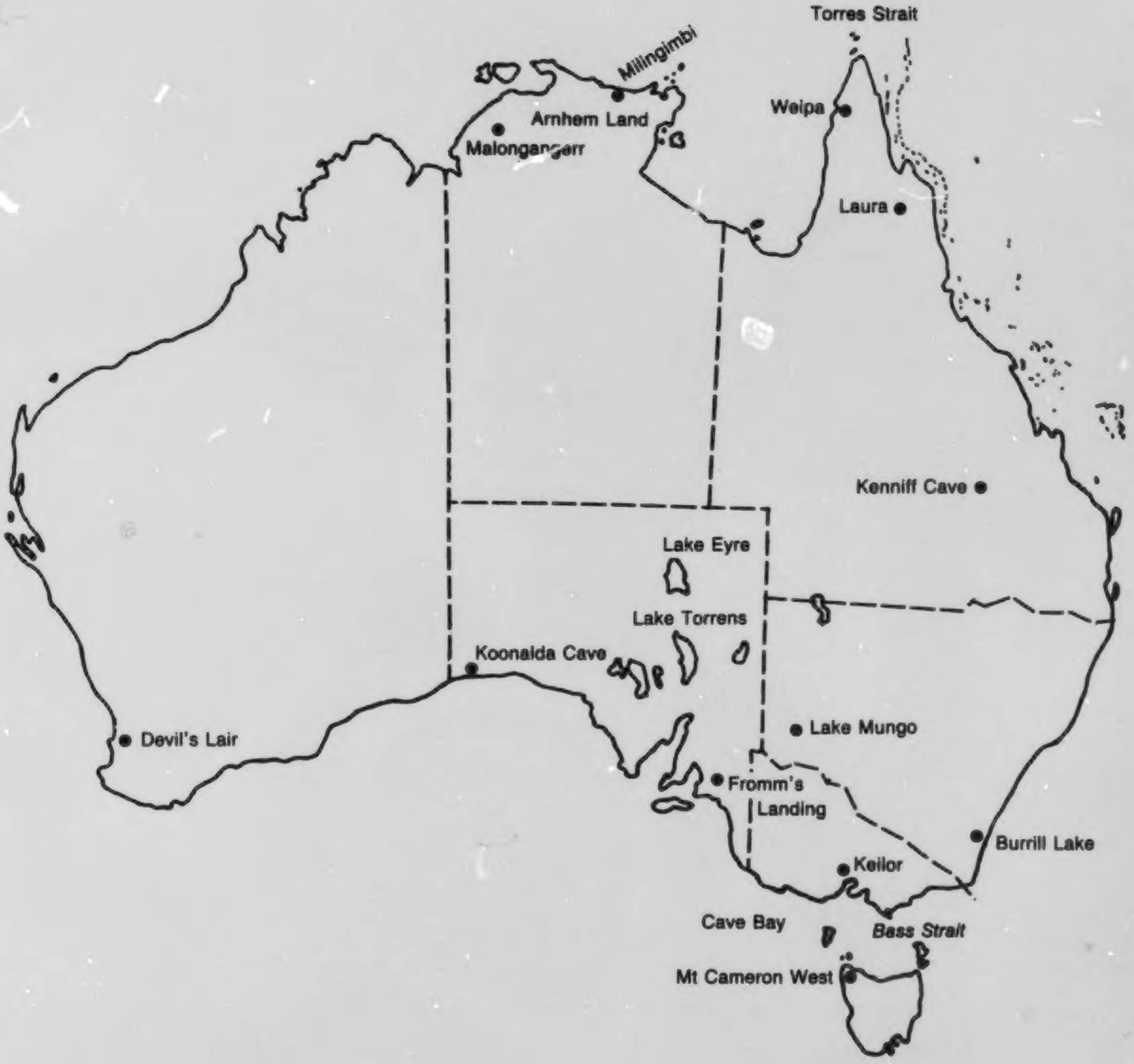
Other archeological sites include Laura near Cooktown in Queensland where rock paintings have been found along with bones dated at about 13,000 years old. At the Malongangerr site in Western Arnhem Land, the oldest ground stone hatchets in the world have been found. These are dated at about 20,000 years old. Cave Bay in Tasmania has been occupied for 24,000 years.

Although there is much archeological evidence to indicate the length of time Aborigines have occupied the continent, there is still uncertainty as to where they came from. Most assumptions suggest they migrated from southeast Asia via land bridges when the sea levels were lower, as shown on Map 7. The closest human parallels can be made with fossil skulls found in Java and Borneo.

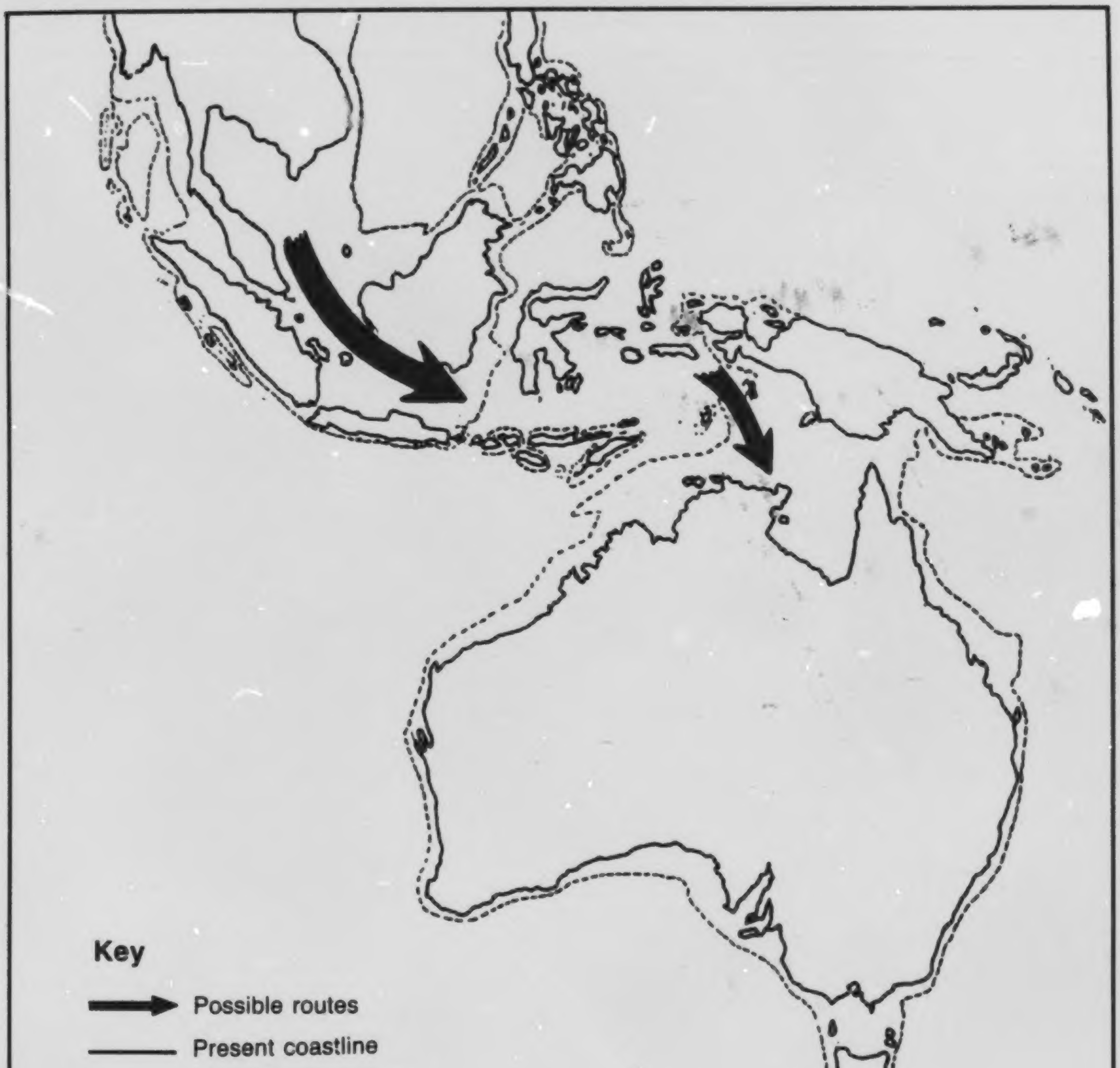
The Aborigines would have arrived, island hopping, in small groups. Migration was not planned and would have taken place over thousands of years. During this period, the world was in the grip of an ice age that made sea levels much lower than today.

Evidence indicates Australia was much wetter then and there was more game, including now extinct large marsupials. Conditions were thus favorable for the extensive spread of humans throughout the continent.

Map 6. Archaeological sites



Map 7. Possible migration routes of Aborigines during the last ice age



About 15,000 years ago, the last great ice age began to decline. As a result, the land bridges over which the people had migrated to Australia were covered with water. Australia then was isolated. The present coastline evolved some 5,000 years ago. About the same time, the climate developed to its present form; the wetter interior, in particular large lakes, became dry.

Because of long-standing isolation, Aborigines have changed only in minor ways; however, it is not possible to link them clearly with other races. Some ancient skeletons do indicate Aborigines have not always looked the way they do today.

During the thousands of years Aborigines have occupied the continent, there have been a number of changes in their way of life. The earliest stone tools were made in northern Australia about 20,000 years ago. These are called "horsehoof cores." Several thousand years later these simple tools had evolved into more delicate instruments. For example, crafters developed a technique for removing symmetrical blades from a stone core. From these blades spearpoints were made. Gradually, the Aborigine perfected the use of the chisel or tula. It was used for various wood carving tasks such as making shields and bowls. During this period of tool innovation, boomerangs and spear-throwers were developed. A recent discovery at Wyne Swamp in South Australia of some 10,000-year-old fragments of boomerangs and digging sticks proves that boomerangs were not copied from the Egyptians, as has been suggested.

Aborigines never became farmers. Given the abundance of food supplies in most areas, it was not necessary; indeed, given the erratic nature of the seasons, it perhaps would have been suicidal. Although they did not farm, they also did not merely gather plants and hunt animals. They replanted roots and seeds; in some areas, they constructed canals for freshwater fish.

Over time, Aborigines developed a close relationship with the land--a relationship rarely appreciated by Europeans. Their religious beliefs stressed this relationship. They believed plants, animals, and nature around them held the secrets of "the gods." They thought most of the features of the landscape had been made by ancestors. Reincarnation was also a belief.

The Aborigines thought the origin of their lives was linked to legends handed down over time by elders. They believed there were originally over 500 tribes with intertribal conflict rare. Tribal territory varied in extent and was regarded as the area where ancestoral spirits lived.

Daily routine was based on centuries of experience and tribal wisdom handed down by elders to initiated youths. Each tribe was a community in itself. Within the community, members of clans and family groups lived as individuals within a large commune. Each family had a totem to distinguish it from other families. The totems were usually associated with specific animals or plants. They reflected the relationships, in particular marriage relationships, between different groups.

Aborigines were largely nomadic, travelling within their tribal area and never exhausting natural supplies. Due to their mobility, they had few possessions; these they shared with the group.

The women reared the children and were responsible for collecting berries, roots, and small animals. Marriages were arranged and involved complex ceremonies. To be of assistance, a girl would often live with the family of her husband-to-be. A woman could only have one husband and, to a large extent, was considered part of her husband's property. The women generally formed a community within the larger community and had their own special rituals.

The men were the hunters and, as such, very skillful. They were also responsible for dividing the cooked food among the group according to strict rules.

Men could have more than one wife but had to provide properly for each. If they attacked other women or were unfaithful, they were severely punished, often by death sentences.

On reaching puberty, young persons participated in complicated initiation ceremonies and then became adult members of the tribe.

Elderly tribe members were respected by everyone. They passed down the tribal stories from generation to generation. The old men in the community also served as judges and were consulted when rules were broken.

Each member of the community had a useful role; however, the roles and organization of the community varied across the continent. Even today, there is no cultural unity and social solidarity among all Aborigines. There are many similarities; however, as to be expected over such a large continent and through thousands of years, important cultural distinctions appear from region to region.

During the Aborigines' occupancy, more than 200 languages have developed. Of these about 100 are still in use. In such languages, there are special vocabularies for special circumstances. For example, a specialized vocabulary is used in the presence of a mother-in-law with whom the speaker has a taboo relationship.

When Captain James Cook of England landed at Botany Bay in 1770, there were probably 300,000 Aborigines in Australia. Along the tropical north coast, the subtropical coast, and the Murray-Darling area, the population density was about 2.5 persons per square kilometer. Elsewhere, it probably decreased to one person for every 300 square kilometer.

European Contact

"They have great bottle-noses, pretty full and wide mouths . . . they are . . . of a very unpleasant aspect having no one graceful feature in their faces . . . The inhabitants of this country are the miserablest in the world . . . who have no houses and skin garments, sheep, poultry, and fruits of the earth." So wrote William Dampier, English explorer and buccaneer, who was one of the first Europeans to make contact with the Aborigine. Most European explorers found the lifestyle of the Aborigine totally alien to the European way of life.

Captain Cook, as revealed in the following extract from his diary of August 1770, was more favorably inclined:

"The number of inhabitants in this country appears to be very small in proportion to its extent. We never saw so many as 30 of them together but once, and that was at Botany Bay, when men, women, and children assembled upon a rock to see the ship pass by: when they manifestly formed a resolution to engage us, they never could muster above 14 or 15 fighting men; and we never saw a number of their sheds or houses together that could accommodate a larger party. It is true, indeed, that we saw only the seacoast on the eastern side; and that, between this and the Western shore, there is an immense tract of country wholly unexplored: but there is great reason to believe that this immense tract is either wholly desolate, or at least still more thinly inhabited than the parts we visited. It is impossible that the inland country should subsist inhabitants at all seasons without cultivation: it is extremely improbable that the inhabitants of the coast should be totally ignorant of arts of cultivation, which were practiced inland: and it is equally improbable that, if they knew such arts, there should be no traces of them among them. It is certain that we did not see one foot of ground in a state of cultivation in the whole country: and therefore it may well be concluded that where the sea does not contribute to feed the inhabitants, the country is not inhabited.

"The men here . . . were of a middle size, and in general well made, clean limbed, and remarkably vigorous, active, and nimble: their countenances were not altogether without expression, and their voices were remarkably soft and effeminate.

"Their skins were so uniformly covered with dirt, that it was very difficult to ascertain their true colour . . . according to our best discoveries, the skin itself is the colour of wood soot, or what is commonly called a chocolate colour. Their features are far from being disagreeable . . . their teeth are white and even, and their hair naturally long and black. It is, however, universally cropped short; in general it is straight but sometimes with a slight curl; we saw none that was not matted and filthy, though without oil or grease, and to our great astonishment free from lice. Their beards were of the same colour as their hair, and bushy and thick: they are not, however, suffered to grow long. A man whom we had seen one day with his beard somewhat longer than his companions, we saw the next with it somewhat shorter and upon examination found the ends of the hairs burnt; from this incident, and our having never seen any sharp instrument among them, we concluded that both the hair and the beard were kept short by singeing them.

"Both sexes . . . go stark naked, and seem to have no more sense of indecency in discovering the whole body, than we have in discovering our hands and face. Their principal ornament is the bone which they thrust through the cartilage that divides the nostrils from each other: what perversion of taste could make them think this a decoration, or what could prompt them, before they had worn it or seen it perhaps, is beyond the power of human sagacity to determine: as this bone is as thick as a man's finger, and between five and six inches long, it reaches quite across the face, and so effectually stops up both the nostrils so that they are forced to keep their mouths wide open for breath, and snuffle so when they attempt to speak that they are scarcely intelligible even to each other. Our seamen, with some humour, called it their spirsail-yard;

and indeed it had so ludicrous an appearance, that till we were used to it, we found it difficult to refrain from laughter. Beside this nose-jewel they had necklaces made of shells, very neatly cut and strung together: bracelets of small cord, wound two or three times about the upper part of their arm, and a string of plaited human hair about as thick as a thread of yarn tied around the waist. Besides these, some of them had gorgets of shells hanging round the neck, so as to reach across the breast.

"But though these people wear no clothes, their bodies have a covering besides the dirt, for they paint them both white and red: the red is commonly laid on in broad patches upon the shoulders and breast: and the white in stripes, some narrow, and some broad: the narrow were drawn over the limbs and the broad over the body, with some degree of taste. The white was also laid on in small patches upon the face and drawn in a circle round each eye. The red seemed to be ochre, but what the white was we could not discover: it was close grained, saponaceous to the touch, and almost as heavy as white lead: possibly it might be a kind of steatite, but to our great regreat we could not procure a bit of it to examine. They have holes in their ears, but we never saw anything worn in them. Upon such ornaments as they had, they set so great a value, that they would never part with the least article for anything we could offer: which was the more extraordinary as our beads and ribbons were ornaments of the same kind, but of a more regular form and more showy materials. They had indeed no idea of traffic, nor could we communicate any to them: they received the things that we gave them: but never appeared to understand our signs when we required a return. The same indifference which prevented them from buying what we had, prevented them also from attempting to steal: if they had coveted more, they would have been less honest: for when we refused to give them a turtle, they were enraged, and attempted to take it by force, and we had nothing else upon which they seemed to set the least value: for as I have observed, many of the things that we had given them, we found left negligently about in the woods, like the playthings of children, which please only while they are new. Upon their bodies we saw no marks of disease or sores, but large scars in irregular line, which appeared to be the remains of wounds which they had inflicted upon themselves with some blunt instrument and which we understood by signs to have been memorials of grief for the dead."

With the arrival of colonists and inland exploration, the differences between the European and Aboriginal cultures became marked; many problems developed. Europeans tried various methods of dealing with the Aborigine. However, prevailing throughout the 1800s was the idea that the European way was superior. This idea largely evolved out of ignorance of the way of the Aborigine, whose society was complex and in harmony with the land.

Early settlers were appalled at the Aborigines' lack of clothing. Their nakedness was considered immoral. Consequently, missionaries attempted to convert them to Christianity. As a result, some Aborigines lost respect for their own people's past.

From earliest contact, Europeans knew the Aborigines to be nomadic. As such, they appeared not to own land in any European sense. Therefore, the Europeans thought they had a right to farm the land. To do this, they had to remove the Aborigines. In some areas, the Aborigines resisted. The Europeans could not understand the reluctance of the Aborigines to change their ways as surely the European way was superior, they thought. The Aborigines were no match for Europeans with guns and bullets.

The situation in Tasmania was so bad that in 1836 the Governor organized a sweep of the entire colony designed to gather in all Aborigines. Once this was done, they were shipped to Flinders Island and put in safe custody of the government away from predatory European farmers. As a result, the Tasmanian Aborigines were gone by the end of the 19th century.

Convinced their ways were better, Europeans tried to assimilate the Aborigines. Sometimes, Aborigine children were removed from their families and brought up by "kind" Europeans. Those assimilated, however, were not treated as equals to Europeans. They received low wages, and their working conditions were poor. Some Europeans did not clash with the Aborigines but worked cooperatively with them, especially in the harsh outback areas. There were also some instances in which the land was "purchased" from Aborigines. Such an example was John Batman's purchase of the land where Melbourne now stands.

As the European population increased in Australia, the native population declined due to disease and the shooting of Aborigines. The government tried to prevent the latter; however, there were too few police officers to enforce the law everywhere. It was commonly believed that the Aborigine would die out as the century progressed. If they did not, it was suggested those remaining be moved to assigned areas where they would be protected. The relationship between the Aborigines and Europeans did not significantly improve with the 20th century. Some attempts started off well but eventually failed. For example, in the 1920s Daisy Bates, an anthropologist, lived with the Aborigines in an attempt to improve their lot. The Aborigines found work on stations (ranches) but under conditions set down by the Europeans. They worked for their keep rather than wages; if they did receive wages, they were lower than those paid to Europeans.

From the 1880s until the 1940s, government policy was one of protection. Reserves were set up, and the government spent as little as possible on Aboriginal welfare. Consequently, protection was minimal, and persecution and maltreatment were widespread.

From the end of World War II until the 1960s, government practices were concerned with assimilating the Aborigines into the European society. It was rarely considered that Aborigines would want anything else.

However, from the 1960s to the present, there has been an emergence of an Aboriginal consciousness. Integration, self-determination, and self-management have come to the fore. Positive relations are encouraged between the Aboriginal and white communities while differences are recognized. With government assistance, Aborigines are able to choose their own futures under a self-determination policy. A self-management policy is similar but stresses that each Aboriginal group is accountable for its actions and financial matters.

During the 1960s and 70s, there was major improvement in the treatment of Aborigines. In 1967, Aborigines were given full citizenship and the right to vote. Improved health services have raised survival rates, and education opportunities have increased. As equal citizens, Aborigines are entitled to the same benefits as other Australians. Full citizenship has resulted in equal wages and changes in the relationship between station (ranch) owners and the Aborigine in rural areas. However, the equalization process is still slow; in comparison with the Europeans, Aborigines still have a poorer lifestyle. Records from an Aboriginal medical clinic in the late 1970s indicated the poor health of Aborigines. Seventy percent of the children seen at the clinic had below average growth rates; 25 percent of these were severely retarded in growth.

The 1970s also saw a drifting of Aborigines to the cities with resultant problems of unemployment and lack of housing. At the same time, there has been increasing concern over land rights. In 1967, an Aboriginal land rights act was passed in the Northern Territory; as a result, several large areas of land are now owned by Aborigines. Other states have followed with similar actions. Aborigines are now recognized as having rights to their lands, but how much and which areas are unresolved.

At present, the major issues concerning Aborigines are:

- cycle of poverty
- land rights
- urbanization
- housing
- employment
- alcoholism
- attitudes of the European community
- control of Aboriginal affairs

One Australian writer notes in an article in Australia Today (Volume 9, Number 2, 1981), "Aboriginals--the original inhabitants of Australia--are becoming more and more involved in finding solutions to the many problems besetting this black minority which forms just over 1 percent of Australia's population."

"They are looking toward the decade of the 1980s to give them their first real chance to create their own destiny and control their own affairs. Aboriginal involvement is the cornerstone of the Australian government's policy toward the country's 161,000 blacks. In the past, non-Aboriginals often made the decisions and assessed priorities. Now, Aboriginals are deciding what should be done."

Peopling the Continent

The first English fleet arrived in Australia in 1788 with an assortment of marines, sailors, officials, and convicts totalling approximately 1,487 persons. By 1860, native-born colonists outnumbered foreign-born colonists; the first census of 1881 showed a population of 2,250,194. The population increased to 14,518,200 by 1979 and is projected to reach 18 million by the year 2000.

Initially, the colony of New South Wales was used by the British government as a convenient dumping ground for criminals. The British hoped many of the criminals would reform and settle down to productive lives. However, the primary purpose of New South Wales was that of a penal colony. The practice carried out a British tradition--criminals were similarly exported to colonies in North America in the 17th century. The British penal system could not provide enough space within the country to accommodate the burgeoning number of criminals. Indeed, the British system did not see imprisonment as a suitable consequence to crime; thus, there were two alternatives: execution or transportation (deportation). Many criminals were executed, often for petty offenses (over 200 crimes were punishable by death).

The movement of Britain into an industrial society, with the consequent social upheaval, increased the ranks of the criminal classes. The penal colony of New South Wales was a suitable place to send them and so reduce the numbers of convicted criminals in Britain.

Up to the 1820s, most convicts were young men between the ages of 15 and 20. The women transported were generally prostitutes who had "pinched" from their customers. There were also political convicts--individuals who had opposed the British government such as the Luddites, early unionists. Most had appeared in court before and were termed by their peers "dreadful villains." The number of political convicts increased markedly with the ending of the Napoleonic War in 1815.

Because ship contractors wanted to make high profits, convicts were transported to Australia in crowded conditions. For each convict transported, the British government paid $50. As a result of overcrowding, many convicts died en route or were weak and diseased on arrival. In the colony, convicts were assigned to the government or to free settlers who were allowed to have two convicts as laborers. Some instances were reported in which a convict's wife would go to Australia as a free settler and then request her convict husband to be assigned to her.

There were six types of persons in the convict system: the chain gang convict, the government convict, the assigned servant, the ticket of leave man or woman, the emancipist, and the currency lads and lasses. The degree of restrictions on their lives varied from the hard rule of the chain gang to the freedom of the ticket of leave persons who could marry and work for themselves as long as they kept out of trouble. The emancipists were convicts who had been pardoned but could not return to England unless given unconditional pardons or until their sentences expired. The currency lads and lasses were the children of convicts and thus free citizens.

By 1800, the penal colony also had a large number of free settlers as well as soldiers who had decided to remain in Australia after completion of their tours of duty.

The number of convicts sent to Australia rose to a peak in 1831-35. Then, as the colony prospered, it attracted more free settlers. During this period, there were changes in the criminal code in England; gradually, transportation of convicts ended with the last ones arriving in 1868.

A total of approximately 157,000 convicts were transported to Australia. This practice provided initial cheap labor in Australia; however, it failed to reduce the crime rate in Britain. Although cheap, the labor force provided was often unwilling and unsuited to colonize the new land.

Eventually, some of the convicts who escaped from the prison camps became outlaws or "bushrangers." They were later joined by nonconvicts who also turned to bushranging for an income. As a result, the decades from the 1860s to the 1880s were known as the period of the Australia bushranger (outlaw) such as Ned Kelly and Ben Hall.

Today their exploits are often glamorized, especially since they were folk heroes in their own local areas. They generally ended up being executed; with the demise of Ned Kelley in 1880, the era of the bushranger ended.

To encourage migration to the colonies of more free settlers, especially women of whom there was a shortage, a series of schemes was devised. In the 1830s, the British government gave assistance to women between the ages of 15-30. In 1835, the Bounty System provided grants for each suitable migrant a colonist brought to Australia. This was followed by a British law that set aside half of the income from Australian land sales for the purpose of assisting migrants. Within Australia, migrants--particularly women--were assisted by Caroline Chrisholm, a famous early colonist. The various migration schemes were successful; by the 1840s, free settlers outnumbered convicts.

The second half of the 19th century saw the population rise to four million. The impetus for growth was the opening up of the land for more farmers and the discovery of gold.

Up to 1860, most land in Australia was controlled by squatters who often did not fully develop the land they occupied. The incoming settlers began to demand land. Persons later called "selectors" demanded that squatters who had not purchased their land be forced to sell some of it and that the vacant Crown (government) land be thrown open at auction. Despite resistance from the squatters, these demands were met. The selectors had a hard time, however, dealing with the harsh land and the opposition of the squatters. Still, their activities encouraged increased migration.

In 1823, gold was discovered in Bathurst, New South Wales. However, it was new discoveries in 1851, also near Bathurst, that spurred the first gold rush. Within a year, the area had over 4,000 miners. Major discoveries in Victoria resulted in another gold rush that attracted more miners than those in New South Wales. The gold rush encouraged an influx of persons from around the world. At its peak, more gold was being extracted in Australia than from any other place, including California.

The Colonial government attempted to control the gold rush by requiring miners to hold licenses. This was opposed in many areas, particularly in Victoria. Here, in 1854, the governor sought to increase government revenues through policing of the license system. As a result, the miners became bitter. This combined with several other incidents resulted in the Eureka Stockade. In this incident, 500 miners set themselves up behind a stockade and demanded certain reforms from the government. This is the only incident of civil rebellion in Australia's history. The stockade was stormed by troops with the loss of 14 miners. Although the miners were defeated at the Eureka Stockade, their demands and concerns were heard, and they eventually won. All the rebels were acquitted, and the licensing law was reformed. The miners also received the right to vote.

Gold discoveries in Victoria and New South Wales, combined with discoveries elsewhere in Australia, resulted in a tremendous increase in population. From 1850 to 1861, the New South Wales population doubled; in Victoria, it increased seven times.

Although concerned about their own rights, the gold miners were prejudiced against persons of other races. The Chinese came to the diggings in great number but were disliked by the miners. As a result, in 1888 all colonies, except Western Australia, introduced a heavy poll tax to keep out Chinese immigrants. Following an anti-Chinese demonstration in Sydney, New South Wales prohibited Chinese immigration. The other colonies quickly followed.

In the second half of the 19th century, to facilitate the development of the tropical areas of Queensland, South Pacific Islanders were brought to Australia. These people, many of whom were forced to come against their will, were called the Kanakas. Again, racial prejudice was expressed by many Australians. This resulted in the return of many Kanakas to their homeland in 1904.

The dealings with the Chinese and the Kanakas were the origins of the White Australia Policy. This policy, stated in the 1904 Immigration Restoration Act, was designed to prevent nonwhite migration to Australia. As a result, most people migrating to Australia were from the British Isles plus some from continental Europe. This practice continued until after World War II.

The period from 1945-78 saw the greatest number of persons ever to arrive in Australia in one period. It was also a period in which Australia became a truly multicultural nation with immigrants arriving from 100 other countries. Since 1975, a nondiscriminatory policy has been in effect.

Australia has fewer than two persons per square kilometer with vast areas being unsuitable for settlement. There has been a trend of movement to the cities in recent years, making Australia one of the world's most urbanized countries. Fewer than 15 percent live in rural areas.

Thus, in the nearly 250 years since settlement, Australia has grown into a multicultural nation of some 14 million persons mainly inhabiting large cities in a narrow coastal strip.

THE HISTORY OF AUSTRALIA TO 1901

European Discovery and Colonization

In April 1770, Captain Cook sighted land near Cape Everard in the southeast corner of Australia. However, this was not the first contact Europeans had with the continent; nor was it the first contact Aborigines had with outsiders.

There is much speculation as to whether Arab and Chinese traders visited Australia prior to the European discoveries. There is ample evidence, however, that Makassan fishermen from Malaya and Indonesia visited the north coast. Sailing in vessels called "praus," they came to search for "trepang," a large sea cucumber regarded as a delicacy. The evidence of their visits is in the form of camp remains. Aborigines made contact with the visitors as seen in their uses of the Makassan sail and of metal. Some Aboriginal words can also be traced back to Makassan words. The Makassans continued to visit north Australia until well into the 19th century but made no permanent settlements.

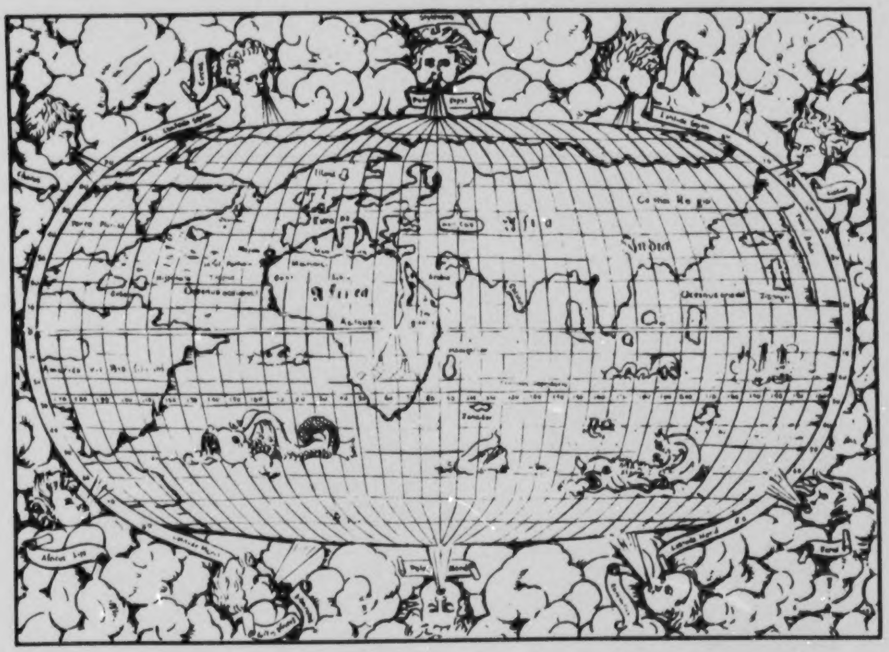
Munster's map of 1545 (see Map 8) shows that the outline of most continents was known at that time, but not Australia. To the south of Asia, there was a large vacant area which gave no hint of Australia. By 1570, Spanish and Portuguese explorations had charted more of the world; Ortelius' map (see Map 9) includes Indonesia and a large imaginary southern land mass that stretched around the world. Many sailors believed in this great land mass. In 1598, a Dutch cartographer wrote, "Australian Terra is the most southern of all lands, and is separated from New Guinea by a narrow strait." ("Australian Terra" is Latin for South Land.)

During the 16th century, Spain and Portugal competed for overseas possessions and access to the Spice Islands of Asia. The Portuguese dominated the Indian Ocean and gradually replaced the Arabs as the major traders in the area. The Portuguese probably sailed along the western and northern coasts of Australia, but there is little evidence to support this. Similarly, the Spanish, coming west from the Americas in search of the Spice Islands, navigated much of the northern coastline but kept it a secret for many years.

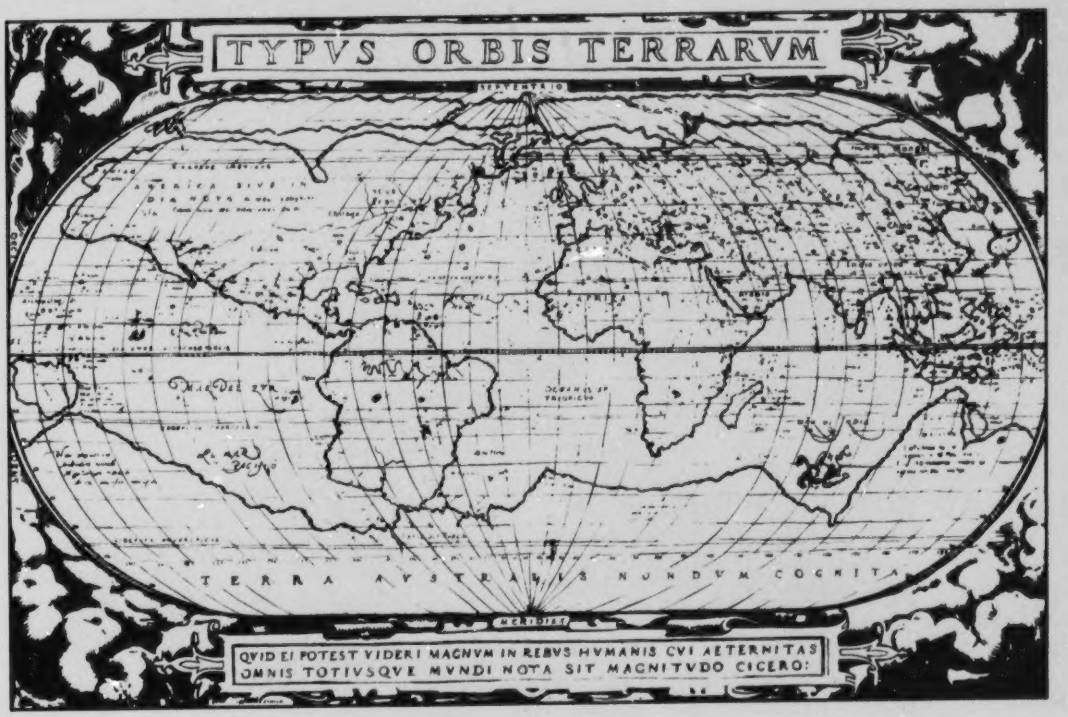
The closing of the 16th century saw the end of Spanish and Portuguese domination of the known world. The Dutch and the British emerged as the new powers as the 17th century progressed. The Dutch dominated the Indian Ocean trade routes to the Spice Islands. The original routes were northerly. However, by sailing south of the Cape of Good Hope to longitude 40°, ships could pick up the strong westerly winds. These winds, known as the Roaring Forties, took them eastward before turning north to the Spice Islands. Unfortunately, navigation was not an exact science at the time. This fact combined with changeable winds caused some ships to sail further east than was intended. As a result, Dutch ships reached the western Australian coast. The first such landing was in 1616.

News of these landings prompted a search for the Great South Land where people hoped there would be gold. In the early 1640s, the Dutchman Abel Tasman explored the land, mapping out much of the new continent and naming it New Holland. Unfortunately, these early Dutch explorations did little to encourage others to follow. Their reports spoke of an inhospitable continent. As a result, little further exploration took place until the late 18th century.

Map 8. Munster's map of the known world 1545



Map 9. Ortelius' map of the known world 1570


TYPVS ORBIS TERRARVM
SEPTENTRIO
AMERICA SIVE INDIA NOVA
MAR DEL ZVR
MAR PACIFICO
OCEANVS AETHIOPICVS
TERRA AVSTRALIS NONDVM COGNITA
MERIDIES
QVID EI POTEST VIDERI MAGNVM IN REBVS HVMANIS CVI AETERNITAS OMNIS TOTIVSQVE MVNDI NOTA SIT MAGNITVDO CICERO:

BEST COPY AVAILABLE

The only major voyage of exploration after the Dutch and prior to Cook was made by Dampier, an Englishman. His first contact with Australia was as a member of a pirate group encamped on the northwest coast in 1688. On his eventual return to England, he wrote of his exploits in a journal (see page 36). The British then provided him with a ship to explore Australia. In 1700, he sailed along the west and north coasts proving that New Guinea was not connected to Australia. His impressions were not favorable, and it was another 70 years before there was further exploration.

In August 1768, Captain James Cook--who was to become one of the world's most important explorers--set sail from Plymouth, England with instructions to sail to Tahiti to observe the transit of Venus across the face of the sun and to explore for the Great South Land.

He was to sail south from King George Island until he reached longitude 40°, then turn west until he contacted the South Land or New Zealand. If he reached New Zealand, he was contracted to map its coastline. Cook carried out his instructions to the fullest (see Map 10).

Sailing in the HMS Endeavour, he rounded Cape Horn in January 1769 and reached New Zealand in October after spending four months in Tahiti.

After mapping New Zealand for six months and proving that no Great South Land existed in the east, Cook sailed westward in search of New Holland, reaching the east coast in April 1770.

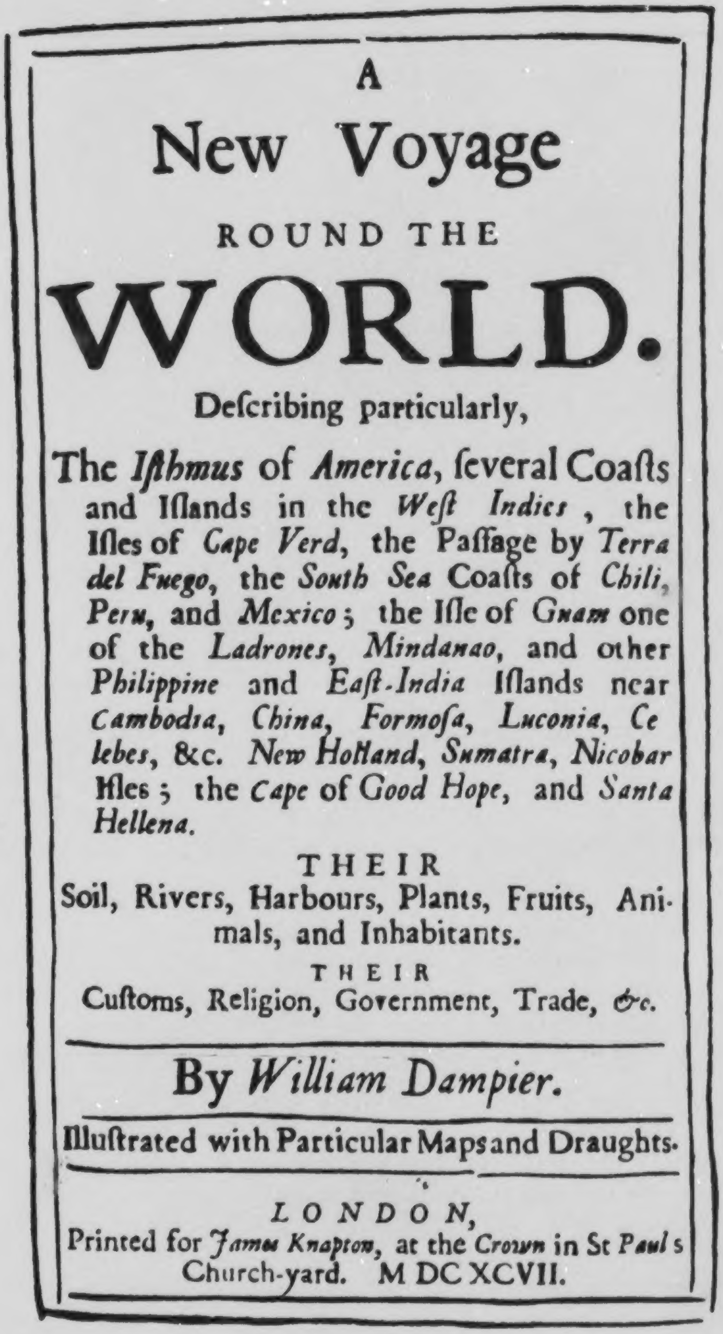
Sailing north along New Holland, Cook noted that the land was green and not barren as earlier explorers had reported. Consequently, he deduced he had discovered a new area and claimed it for England naming it New South Wales.

The voyage continued along the east coast with the only major mishap being the grounding of the ship in the Endeavour River. It took 45 days to repair the ship. He then sailed farther north, rounded Cape York, and returned to England via Batavia and the Cape of Good Hope arriving in July 1771, three years after his original departure.

Cook's first voyage was followed by two others. The second voyage, from 1772-75, took him far south, close to Antarctica, again in search of the Great South Land. This voyage finally proved there was no such land mass. His final voyage, 1776-79, sent him in pursuit of a northwest sea passage between the Pacific and Atlantic Oceans. On the return trip to England, he was killed in the Hawaiian Islands while trying to retrieve a small boat that had been stolen.

Cook's glowing records and accurate maps were highly important to the development of Australia. For the first time, people saw possibilities in the land they had discovered. The possibilities included using Australia, or New South Wales as it was then termed, as a naval and supply base for the British in trade with China, as a whaling base, and as a penal colony. The latter was needed because the United States had gained its independence in 1783 and could no longer be used as a dumping ground for criminals.

Cover of Dampier's Journal



A
New Voyage
ROUND THE
WORLD.
Deſcribing particularly,

The *Iſthmus* of *America*, ſeveral Coaſts and Iſlands in the *Weſt Indies*, the Iſles of *Cape Verd*, the Paſſage by *Terra del Fuego*, the *South Sea* Coaſts of *Chili*, *Peru*, and *Mexico*; the Iſle of *Guam* one of the *Ladrones*, *Mindanao*, and other *Philippine* and *Eaſt-India* Iſlands near *Cambodia*, *China*, *Formoſa*, *Luconia*, *Celebes*, &c. *New Holland*, *Sumatra*, *Nicobar* Iſles; the *Cape* of *Good Hope*, and *Santa Hellena*.

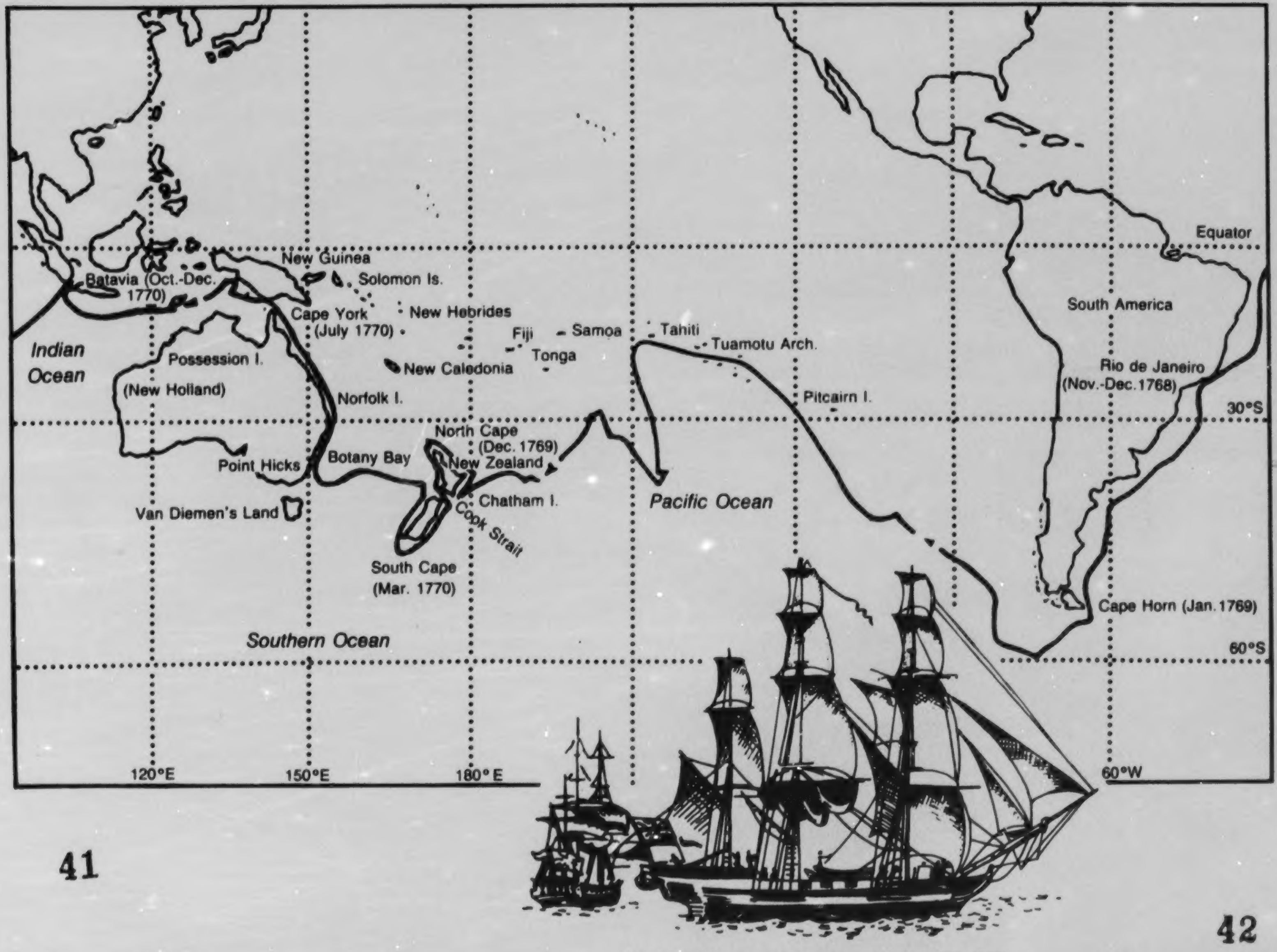
THEIR
Soil, Rivers, Harbours, Plants, Fruits, Animals, and Inhabitants.
THEIR
Cuſtoms, Religion, Government, Trade, &c.

By *William Dampier*.

Illuſtrated with Particular Maps and Draughts.

LONDON,
Printed for *James Knapton*, at the *Crown* in St *Paul*'s
Church-yard. M DC XCVII.

Map 10. Captain Cook's voyage to Australia



Cook setting out on his second voyage (1772-1775)

In August 1786, Lord Sydney issued the following proposal to the British Parliament that New South Wales be occupied as a penal colony:

"My Lords, the several goals and places for the confinement of felons in this kingdom being in so crowded a state that the greater danger is . . . not only their escape, but from infectious distemper which may hourly be expected to break out amongst them, his Majesty . . . has been pleased to signify . . . that measures should immediately be pursued for sending out of his kingdom such of the convicts as are under sentence or order of transportation . . . his Majesty has thought it advisable to fix upon Botany Bay situated upon the coast of New South Wales."

The proposal was accepted, and the first fleet arrived at Botany Bay in January 1788. There were 11 ships and about 1,500 persons including 750 convicts. Captain Arthur Phillip, a 48-year-old naval officer of wide experience and some knowledge of farming, led the colonization.

Area natives, while wary of the newcomers, were not hostile, and Phillip was able to make friendly contact with them. Unfortunately, the land around Botany Bay proved unsuitable for establishing a colony. As a result, Phillip sought out better land approximately eight kilometers to the north at the present site of Sidney. The settlers were transferred to the new site, and on January 26, 1788, the Union Jack was raised; those assembled drank to the health of the King. This event is still celebrated as Australia Day.

Early problems with lack of supplies were gradually overcome as the settlers became masters of the land. Also, supplies were provided by passing ships including American vessels on the way to China.

When Captain Phillip left in 1792, the colony was well established. There had been many deaths among the settlers; the colony was still quite small and isolated, but a beginning had been made.

The First 40 Years

New South Wales (Australia) proved to be costly for the British government to run so the need to find an economic base for the colony was soon evident. Whaling, sealing, and the growing of flax were considered; however, early settlers found the raising of sheep provided an industry on which an economic future could be built. They improved their fleece by crossbreeding and found a market for their products in England. In 1813, the opening of a route across the mountains to the fertile Bathurst Plains allowed settlers to develop additional land to raise sheep.

During these early years, law and order was established. There were a police department, a school, and a customs officer; the road system was improved; and public buildings were constructed.

As exploration revealed the extent of the continent, the British government became concerned about the possibilities of other European nations making claims. Initially, the British had only claimed the land east of 142° E. Gradually, they claimed the rest of the continent and backed their claim by the establishment of forts and colonies.

Much of the development of rural land was done by "squatters." Originally, these were escaped convicts, deplored by the settlers, who eked out an existence in the bush. They later became more acceptable as their ranks grew to include ex-officers and settlers. To limit their expansion activities and to protect the Aborigines' lands, successive governors imposed controls. However, this did not stop the squatters. With pioneering spirit and despite adverse conditions, squatters established profitable sheep ranches. Victoria, in particular, was settled by squatters who could obtain legal title to crown land through purchase or lease from the government.

By 1840, the seedlings of all the states had been sown; the continent was well on the way to nationhood.

Development of Self-Government in the Colonies

The first governor of the colonies exercised wide power and answered only to the British government. In 1823, the British created a council to represent the people in New South Wales and in Van Dieman's Land (Tasmania). Despite a variety of provisions to restrict its power, the council was the foundation for the legislative councils of the future.

As the population grew, more and more individuals wanted to share in the government. This did not happen; as a result, pressure groups arose. One of these groups, the Emancipists, was led by locally born William Charles Wentworth. The governor's appointed political favorites were called the Exclusives.

The conflict between the Emancipists and the Exclusives continued to grow. In 1835, Wentworth established the Patriotic Association. The following year a petition was sent to London calling for greater representation in the legislature. The British government granted representative government to New South Wales in 1842.

An act passed in 1850 established legislative councils in the other colonies and allowed each state to devise its own constitution.

By the 1890s, all the settlements had blossomed into self-sustaining and self-ruling colonies.

Early Inland Exploration

Exploration of the interior from 1840 to 1880 disproved the belief there was a major sea or even land area suitable for agricultural development inland.

By 1860, much of the continent had been explored; still no one had crossed it from north to south or from west to east. The South Australian government offered a reward for the first person to cross from south to north. In July 1862, on his third attempt, John McDovall Stuart finally reached the north coast. He thought he was the first to traverse the continent. However, a year earlier an expedition by Robert O'Hara Burke and W. J. Wills had crossed the continent reaching the Gulf of Carpentaria in February 1861.

The Burke and Wills expedition was one of the best equipped, but it was also one of the most tragic. The expedition left Melbourne in 1860. A supply camp was left behind at Cooper's Creek while Burke and Wills and two other men journeyed to the Gulf. On their way back from the Gulf, one of the men died; when Burke and Wills arrived back at the supply base, they found it had been abandoned earlier in the day. Burke, Wills, and the other man attempted to make it to Adelaide despite oppressive heat and lack of water. If they had waited at Cooper's Creek, Burke and Wills would have been rescued since the leader of the supply party returned to look for them. Also, tragically, Wills returned to the creek but again missed Burke by a short period of time. Burke and Wills died in the desert while the third man was rescued and cared for by Aborigines.

In the 1870s, a number of explorers wanted to be the first to cross the continent from east to west. The first to make the trip was Peter Warburton who left Alice Springs in April 1873. Although aiming for Perth, he was forced northwest in search of water. His party arrived at Roebourne in January 1874 after covering 3000 kilometers of desert.

Warburton's east-west crossing was followed by Sir John Forrest's west to east crossing in 1874. Ernest Giles made two journeys across the continent in 1875 and 1876.

With the Giles, Warburton, and Forrest expeditions completed, the belief in a great inland sea was finally put to rest. The face of the land was now fairly well known. Even today, although all of the continent has been photographed and mapped, there are still many isolated and unknown areas both in the inland areas and in southwest Tasmania where impenetrable vegetation makes exploration difficult.

From Colonial Status to National Independence

The years 1860 to 1901 saw Australia develop from a group of colonies into one nation. The first suggestion the colonies should unite was made by the British Colonial Secretary Earl Grey in 1847. However, the Commonwealth of Australia was not constituted until 1901. Motives behind federation included the following:

- There was widespread loyalty to Britain as the Mother Country.
- The colonies were similar in government.
- Most felt the colonies would eventually unite.
- Commerce would be strengthened with the removal of trade barriers between the colonies and with the implementation of a common policy toward foreign nations.

- There was a fear that foreign powers such as Russia, France, and Germany might attempt to take part of the continent. This could only be countered by a united defense system.

- The fear of an influx of Asians, especially Chinese, encouraged the colonists to draw together to form a united policy on immigration.

Better communications reminded the colonists of what they had in common as a people.

The first prime minister of the Commonwealth of Australia was Sir Edmund Barton. The first federal parliament was opened in Melbourne in May 1901 by the Duke of Cornwall (later King George V), 113 years after the arrival of the first fleet in Botany Bay.

THE HISTORY OF AUSTRALIA TO THE 1980s

Early Years of the Commonwealth

Although the colonies had much in common, including their British heritage, in the early years of the Commonwealth they had to weld themselves together into one nation.

The federal government assumed responsibilities for trade, commerce, taxation, postal and telegraphic services, defense, civil and criminal courts, immigration, emigration, external affairs, and customs. The states retained control over education, police, and railways. The initial relationship was intended to allow the states to continue to run themselves with the federal government providing assistance.

Initially, the Commonwealth Department of External Affairs was more concerned with relations with the British government than in establishing an independent foreign policy.

The Japanese defeat of Russia in 1905 awakened Australians to the changing state of foreign affairs. Japan was seen as an expansionist power that could possibly threaten Australia.

In 1906, Australia assumed control from Britain of Papua New Guinea. The following year, Australia, along with Canada and New Zealand, became a nearly independent dominion of the British Commonwealth. This meant that Australia had to be more fully consulted by Britain on foreign policy. Consultation was not extensive, however, as shown when Britain signed an alliance with Japan in 1911 without consulting Australia.

Initially, Australia relied upon Britain, especially the Royal Navy, for defense. The Australian government contributed financial help and some personnel to the British forces.

In 1908-09, Britain decided Australia should have its own navy. Just before the outbreak of World War I in 1914, the first squadron of the Royal Australian Navy had been formed. Likewise, the Royal Australian Army had been developed during these years. Thus, by 1914, the federal government had started to develop an independent foreign policy supported by an infant army and navy.

On the domestic front, there were many ties between the emerging Australian states in 1901. Australians still did not see themselves as one whole nation, but rather as a collection of states retaining their own individuality. The concept of an Australian nation was still unfolding.

In the first 13 years of the Commonwealth, much was accomplished. Political parties were clearly delineated with many social policies gaining broad support. Externally, most of the parties espoused an Imperialist view in support of Britain; however, there were indications a more independent stance was in sight.

Domestic reforms and the new federal court system resulted in a greater awareness across the states of a national identity. Because of the Commonwealth Land Tax, state tax revenues by 1910 began to fall while those collected by the Commonwealth rose. The same year the Commonwealth Bank was established.

Australia and World War I

World War I was not the first conflict in which Australian troops were engaged. In Africa, they had fought in the Sudan and in the Boer War alongside British troops. However, World War I was more important in the development of the nation.

At the outbreak of the war in 1914, Australia cabled London: "The Government is prepared to place the vessels of the Australian Navy under the control of the Admiralty. The Government is further prepared to dispatch an expeditionary force of 20,000 men."

Britain accepted the offer and agreed to allow the force to remain an Australian unit and not be divided among British units.

There was much enthusiasm and patriotism at the start of the war and tremendous confidence in the allies' ability to defeat the enemy quickly. However, in their first major engagement, the Australian and New Zealand Army Corps (ANZAC) were involved in the disastrous Gallipoli Campaign in 1915. In the campaign, the Allies planned to eliminate the German ally, Turkey, by capturing Constantinople. To do this, they would have to capture the Dardanelles. The plan was to land at Gallipoli Peninsula in western Turkey some 20,000 Australians, 10,000 New Zealanders, 16,000 French, and 20,000 British and Indian troops.

The attack at Gallipoli on April 25 was ineptly executed. The Turks had been alerted to the attack by a premature naval bombardment. Also, the troops landed at the wrong spot. Instead of level ground, they faced steep slopes and ridges. ANZAC was forced to dig in; Turkish attacks were repeatedly beat back. From April to December 1915, the ANZAC force was resupplied and held onto its territory despite dreadful conditions and counter attacks. Many realized the whole Gallipoli Campaign was a fiasco. Finally, the forces were withdrawn. The attack cost 20,000 casualties including 7,000 killed. There were many stories of heroism and acts of courage during the campaign. Although defeated, ANZAC and its spirit has ever since been revered in Australia. A special day, April 25, is commemorated as ANZAC Day.

From 1914 to 1918, Australia sent to war 330,000 volunteers of which 60,000 were killed and some 166,000 were wounded. Australia's population at the time was 4,875,350.

The four years of war changed Australia. The loss of the young men was incalculable; however, the legend of ANZAC contributed to national unity and pride. Australia emerged from the war as more of an independent nation. As exports increased during the war years, especially to Britain, Australia built up sizeable reserves of credit and gold. Another result of the period was increased industrialization.

Interwar Years

Australia's participation in World War I, although as a member of the British Empire, revealed Australians had unique characteristics quite distinct from the British. However, in Australia, there still remained a feeling of wanting to stay within the British Empire. This differed from the political view of many persons in Canada, South Africa, and the Irish Free State. They wanted to see the Empire redefined in terms of autonomous communities within a Commonwealth. This discussion continued throughout the 1920s.

Despite Australian opposition, the British government redefined the roles of the Empire's dominions in 1931. British power over the dominions ended; Australia became completely independent in respect to foreign relations. The Australian government still regarded its ties with Britain as strong, however.

Throughout the period to 1929, Australia prospered. Industries originally developed during World War I flourished, and the use of electric power expanded. Steel production doubled; with a plentiful supply of capital, the building industry boomed. The prosperity of the 20s would always continue, it seemed.

The feeling of optimism was supported by an expansion of the film and record industries and the airlines. QANTAS (Queensland and Northern Territory Air Service) began operations in 1922.

Australian aviation pioneered new routes as well as commercial flights. Probably the most famous Australian aviator was Charles Kingsford Smith, popularly known as Smitty. In 1928, together with his copilot Charles Ulm and two Americans, Harry Lyon and James Warner, he became the first person to fly from the USA to Australia across the Pacific. In 1935, he disappeared near Burma while on a flight to London.

In 1927, the new Parliament House was opened, and Canberra became the capital. Previously, the government had operated in Melbourne. In 1929, the Australian Labor Party came to power in a landslide victory. The same year in the United States, Wall Street crashed; the worldwide Depression began to affect Australia. In 1926, unemployment was 6 percent. In 1930, it rose to 19 percent; by 1932, it had peaked at 29 percent. Even by 1935, national income per head of household was still 10 to 15 percent lower than before the Depression.

The Depression hit Australia particularly hard since most of the nation's income came from exports. As world markets shrank, so did the demand for Australian goods, particularly products such as wool and wheat. Recovery was slow and erratic throughout the late 1930s.

Australia and World War II

During World War II, Australian forces were engaged in both the European and Pacific theaters.

In England, Australian air squadrons participated in the Battle of Britain during 1940-41. In North Africa from 1940 to 1942, Australian forces fought Italian and then German forces. Of significance was the siege of Tobruk, Libya, where Australians held off repeated German attacks for months. Australian forces were engaged against pro-German forces in Greece, Syria, Lebanon, and Iraq. They fought bravely and were held in high esteem by Allied commanders.

In the Pacific, when Singapore was lost to the Japanese, 16,000 Australians were captured. Many did not survive as prisoners of war. Darwin was bombed, two British battleships were sunk, and the Japanese advanced swiftly. Australia needed new allies and turned to the United States. US General Douglas McArthur was appointed Commander-in-Chief of the Southwest Pacific. He was headquartered first in Melbourne, then Brisbane, and eventually in Papua New Guinea before returning to the Phillipines.

The alliance with the United States resulted in thousands of Americans "invading" the country with their different lifestyle. Although there were some brawls, the presence of the Americans was a foretaste to changes to be expected in Australia when many non-English persons arrived in postwar years.

Even more important than the presence of US troops was the signing of a defense alliance between Australia and the United States. This was the beginning of change in Australia's foreign policy. In the future, Australia would look more to the United States and less to Britain for security and defense.

World War II was a significant period in Australia's history. On the home front, the war spurred industrial development. Many women entered the workforce, and new social services were developed. The following years would see continuation of Australia's involvement in world issues while the nation completed economic and political changes initiated during the war.

Post World War II Years

Throughout the 1950s and 1960s, Australia was concerned about the spread of communism, particularly in Asia.

In the early 50s, Australia participated as part of the United Nations force in the Korean conflict. In addition to fighting communist expansion, Australia joined with other countries in defense pacts. In 1951, Australia joined New Zealand and the United States in signing the ANZUS Treaty, a mutual defense pact. In 1954, Australia joined with other nations in the Southeast Asia Treaty Organization (SEATO).

The fear of communism, treaty obligations, and support of the United States led Australia and New Zealand to become involved in the Vietnam conflict. By 1967 all three of Australia's military services were fighting. The Navy was shelling Viet Cong targets, the Air Force was taking part in raids on North Vietnam, and 6,000 troops were fighting on the ground.

As the war dragged on, opposition at home over Australia's involvement increased. Many young people refused to register for conscription (the draft), and moratorium marches involving hundreds of thousands of persons took place. Consequently, in 1970, Australia finally withdrew. Under the direction of the new Labor Party government led by Prime Minister Gough Whitlam, compulsory national service was ended.

The Vietnam conflict was a testing ground for Australia's foreign policy towards Asia. At the outset of Australia's involvement, China was seen a formidable, possible enemy. At the end, an accredited Australian mission had arrived in Peking. After the Vietnam cease-fire and establishment of friendly relations with China, SEATO began to be seen as less important to foreign policy. By 1975 few original members remained, and the Organization was disbanded in 1977. SEATO had been formed in defense against communists. Indications that SEATO was of little value in the 70s was the fact that only Australia, the Philippines, and New Zealand contributed to Vietnam. The Sino-Soviet split and emergence of smaller communist groups in Southeast Asia were other factors leading to the demise of SEATO.

The Labor Government of the early 1970s tended to redefine the relationship between Australia and the United States. Australia began to set its own course, as evidenced by the establishment of diplomatic relations with North Vietnam and China. The country saw itself as a friend of the United States but able to take an independent stand on issues.

When Prime Minister J. Malcolm Fraser of the Liberal Party took office in 1975, Australians felt the need to reassure the United States that Australia had not drifted too far away, as some US observers had thought. Fraser aligned the country with US President Jimmy Carter's human rights policy, opposed the presence of Russian vessels in the Indian Ocean, allowed the use of Australian facilities for the US armed forces, and continued to stress the importance of the ANZUS Treaty agreement. Australia continues to promote peace in the world. For example, Australia contributed troops to United Nations peace keeping forces in the Middle East.

Since World War II, Australia has not only redefined its relationship with Asia, but the link with Britain has also changed. Australia is still a member of the British Commonwealth, and Queen Elizabeth II is still the Queen of Australia. Although emotional ties are strong, political and economic bonds are less so. With the large influx of non-British migrants since World War II, Australian society is now multicultural. Emotional ties with Britain may further decline over time.

In 1975, Papua New Guinea became an independent nation. As a result, Australia divested itself of any remaining overseas mandates. Elsewhere in Asia, Australia has been building up friendships with Indonesia, in contrast to days of confrontation in the sixties.

One of the most remarkable changes in foreign relations of the postwar period has been toward Japan. Immediately after the war, Australia had wanted Japan to be continuously occupied. However, with the emergence of China, it was more appropriate to conclude peace and allow Japan to rebuild as an independent nation. The economic emergence of Japan resulted in a significant increase of trade between the two nations. Today, Japan is Australia's major customer; the ill feelings of the 1950s have diminished.

Economically, the post-World War II period has been one of expansion. The 50s saw an influx of migrants and economic boom conditions. The 60s started with a severe economic recession; however, for most of the decade, healthy economic conditions prevailed, fueled by large-scale discovery of important mineral deposits. As a result, Australia became a major world supplier of various minerals. The 70s saw a collapse of the 60s' economic boom as the world went into economic recession and inflation increased. Although Australia, with its own petroleum reserves, was less severely affected by the oil crisis of the mid-1970s, the effect on the world economy impacted Australia's trade. Increased costs of the Labor government's social policies also aggravated the situation. Today, Australian policy has overcome the excesses of the decades' social programs and has come to terms with inflation. The 80s could see another economic boom period with the development of major energy resources.

The 1980s

Today Australia is a middle-ranking power with a strong economic base. Although there are still many Australians who are not affluent, most enjoy a high standard of living.

The 1980s promise to be a decade of massive economic development in Australia with a surge of new projects and investment in mining and manufacturing. New investments represent confidence in Australia's future based on two considerations: Australia as an exporter of energy as well as a processor of its own natural resources. The latter is possible due to abundant supplies of raw materials and comparatively cheap energy.

To fuel projects planned for the 80s, Australia has large reserves of coal, oil shale, natural gas, and uranium. Only in crude oil is Australia deficient, even here supplying 70 percent of its needs. However, Australia is predicted to be only 35 percent self-sufficient in crude oil by 1990. Further discoveries of crude oil may help. For example, three of the world's 12 deepwater rigs are doing extensive drilling off the coast of northwestern Australia.

Meanwhile, Australia is taking steps to make its crude oil supplies last longer. The most promising is the search for economical technology to distill oil from coal and oil shale. There is also the potential to replace up to 20 percent of Australia's petroleum fuels with alcohol produced from crops.

Australia has launched an energy conservation campaign designed to reduce consumption of liquid fuels. The campaign includes reduction of fuel within government departments and agencies plus a national conservation publicity program.

In the next decade, Australia's importance to the world energy trade will rise sharply as exports of coal, natural gas, and uranium gather momentum. The dominant energy export will be coal, especially steaming coal for electricity generation. Australia has enough coal reserves to last for centuries with exportable quantities of natural gas from the Northwest Shelf where reservoirs beneath the Indian Ocean are being tapped.

Large uranium deposits are located in the Northern Territory and in Western and South Australia. Australia has up to one-fifth of the world's low-cost uranium reserves.

Australia produces up to 5 percent of the world's aluminum, a figure expected to increase fivefold in the near future with the expansion of current projects by major companies. A wave of new projects is also underway in the iron producing districts of Western Australia. In South Australia, massive discoveries of copper, uranium, and gold beneath the arid sands of the Stuart Shelf indicate a productive future.

Today Australia is a major producer and competitive supplier of foodstuffs, natural fibers, industrial raw materials, and energy. This sound economic base ensures a prosperous future. Problems include the need to restructure employment, reduce unemployment, provide services for all, maintain and expand equality of opportunity for everyone, and protect the environment. However, the sound economy and stable political character of the nation provide a firm base for progress.

Defense

The defense of Australia poses enormous problems particularly considering its 37 000 kilometers of coastline. Australia has engaged in military actions both far from its own shore and in its own region assisted by a powerful ally. This ally was originally Britain but today is the United States of America.

Australia occupies a strategic position as a Pacific and an Indian Ocean country. Its first responsibility is its own defense; however, it also has global obligations. As such, Australian defense policy is one of deterrence. It keeps sufficient forces to respond to limited military tasks, to protect supply lines, to be able to assist regional friends, and to fulfill treaty obligations.

Much importance is placed on the ANZUS Treaty, the mutual defense agreement between Australia, New Zealand, and the United States. Under the treaty each country "recognizes that an armed attack in the Pacific area on any of the parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes." The ANZUS Treaty does not bind the parties to assist each other militarily in all circumstances, but it does provide a measure of security. The Treaty provides many other activities including support, intelligence exchange, and joint exercises.

There are also joint military establishments. These include a joint naval communications stations at North West Cape in Western Australia, a joint defense space research center near Alice Springs, and a joint defense communications station at Numingar in South Australia.

Australia also has defense cooperation programs with Papua New Guinea, Indonesia, Malaysia, Thailand, Singapore, the Philipines, and the emerging states of the Southwest Pacific. Defense assistance is oriented toward civil-aid programs.

The Indian Ocean is an increasing area of operations for Australia since the Soviet incursion into Afghanistan. The government has ordered extra surveillance flights and naval patrols, ship visits to nearby states, and military exercises with friendly forces in the region.

An important civilian involvement is coastal surveillance, particularly in patrolling the 200-nautical mile Australian fishing zone. Air patrols also report on damage to the environment, possible drug import activities, and landings of illegal aliens.

HOW AUSTRALIA IS GOVERNED

The Federal System

> We, therefore, by and with the advice of our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of January, One thousand nine hundred and one, the people of New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.
>
> Proclamation Victoria Regina 1900

Thus in 1901, Australia was created out of six states and one mainland territory. Today there are six states and two mainland territories governed by a system based on the 1901 federation and Australian constitution.

At the time of the federation, each of the six states had its own government and parliament. Some of the power of these governments was transferred to the federal government.

In broad terms, Australia has a three-tier system of government. The federal Australian parliament and government have responsibility for matters of national interest. The six states and the Northern Territory (which is largely self-governed) complement the activities of the national government. There are also about 900 local government bodies at the municipal level.

Australia is a parliamentary democracy with a written constitution. The federal form of government is modeled partly on American and Swiss precedents. For example, Australia borrowed "Senate" and "House of Representatives" from the United States. From Switzerland, it adopted the referendum as a means of changing the constitution. It retains the principle of responsible government through the Britist Westminster system.

Federal powers are vested in the Senate, the House of Representatives, and the head of state--Queeen Elizabeth II of England. The Queen is represented in the country by the governor general who is appointed by the Queen on the government's recommendation. In each state, a governor also represents the governor general. Although the governor general has the power of summoning and dissolving parliament, appointing ministers and assenting to bills, the role has traditionally been largely ceremonial.

State parliaments are subject to their own constitutions as well as to the Australian constitution. To change the Australian constitution, the change must first be passed by a majority in the Senate and the House of Representatives. Then a majority of voters in at least four states, as well as an overall majority, must vote for the change in a national referendum. The constitution does allow for a change to reach the people if one of the houses rejects or fails to pass it or passes it after amending it without the agreement of the other house.

The two houses, Senate and House of Representatives, have equal power in making laws, except for finance bills that must originate in the House. A federal law, if valid, overrides any state law.

A system of cabinet government along British lines is practiced. The party or coalition with a majority in the House of Representatives forms the government and ministry. The ministry consists of the prime minister and ministers, each of whom is responsible for a particular area of government. The cabinet is an inner group of ministers. The ministry is collectively responsible for government action to the parliament.

The House of Representatives includes one member of parliament from each of the federal districts, based on population. As a result of the distribution of the Australian population, the physical size of districts varies while the population of each remains within certain guidelines.

Under the terms of the constitution, the House of Representatives should be twice the size of the Senate. The House has 124 members: 43 from New South Wales, 33 from Victoria, 19 from Queensland, 11 from South Australia, 10 from Western Australia, five from Tasmania, two from the Australian Capital Territory, and one from the Northern Territory. Elections are held every three years.

The Senate is modeled on the United States Senate with each state electing 10 senators, while the Northern Territory and Australian Captial Territory each elect two. Senators are elected for two three-year terms (six years) with half running for reelection every three years. Exceptions are senators from the Northern Territory and Australian Capital Territory who are elected for only one three-year term.

State governments have extensive formal powers including health and education. Except for Queensland, they are based on the British two-house Parliament. In Queensland, there is only one house. As with the federal government, each state has a cabinet to control public services and statutory authorities through ministries. In recent years, there has been an attempt to give back to the states some of the powers such as the right to collect an income tax they earlier relinquished to the federal government. At present, an income tax is collected by the federal government which then gives grants to the individual states.

The structure and power of local governments vary across the nation; however, local councils of government are subject to state departments or to the governor general. They generate income through levy of taxes based on house/land value and through grants from the state or federal government.

It is compulsory for eligible Australians over age 18 to register and to vote in all elections. Failure to vote is punishable by fine.

To elect members to the House of Representatives, a preferential voting system is used. A voter indicates on the ballot which candidates are his or her first, second, third, etc. choice. To be elected, a candidate must receive a majority of the votes (half the number of votes cast plus one). However, when no candidate receives a majority, a proportional system of redistribution of ballots is used until a winner is selected.

For the Senate, a somewhat different preferential-proportional voting system is used. States also differ from the federal system with some states having preferential systems of voting and some proportional systems, reflecting local choice.

The Legal System

Australia is a federal parliamentary democracy. Its federal principles were inspired mainly by those of the United States with one important omission: the Commonwealth of Australia Constitution Act of 1900, which contains the constitution, does not have a comprehensive Bill of Rights such as that composed by the first 10 and the 14th amendment to the US Constitution. Instead, Australia has followed the British example and continues to rely mainly on common law remedies and on political conventions to protect individual liberties. Australia has also followed British examples in many aspects of the legal profession and in the structure of the judicial system.

The Australian government controls the federal territories--the Australian Capital Territory and the Northern Territory--and has created their courts and legal system on lines much like those of the states.

Within the states, the federal government is restricted to running specialized courts whose jurisdiction extends only to disputes between states, between a state and the Commonwealth of Australia, between individuals and the Commonwealth of Australia; in cases requiring the interpretation of the constitution or federal laws; and in a few other minor matters. These provisions were largely copied from the judiciary provisions of the United States.

In one important federal respect, Australia departed from the US model. The federal High Court of Australia is not only a trial and appellate court for federal purposes, particularly constitutional purposes, like the Supreme Court of the United States. The High Court is also a general court of appeal from the supreme courts of the states. Thus, the High Court provides what the US Supreme Court cannot: a unifying element in the overall legal structure. It is a powerful force for a uniform Australian common law which originally was derived from England in the 19th century.

The Australian Parliament was empowered to set up federal courts other than the High Court and could have created a comprehensive system of federal trial and intermediate appellate courts like the district courts of the United States. However, it was also empowered to vest federal jurisdiction in state courts--something not provided for in the United States Constitution. This was the course it generally followed, as being simpler and more economical. Recently, the range of federal cases triable in state courts has increased considerably.

The Australian Parliament has created other federal courts but only for specialized purposes; it has used its powers to ensure that federal cases, however tried, cannot go directly to the judicial committee of the Privy Council, which meets in London, but must go on appeal to the High Court.

As in most countries, Australia has many specialized courts and tribunals such as workers compensation commissions and industrial conciliation and arbitration courts dealing with employment disputes.

In addition to the High Court, there is a Federal Court and a Family Court. The Federal Court is confined to special types of federal cases such as penalty proceedings on restrictive trade practices and consumer protection. However, in certain cases, appeals can be brought to the Federal Court from state and territory supreme courts. Appeals from state appellate and supreme courts go straight to the High Court.

The Family Court deals only with matrimonial cases and has an internal appeal court like the supreme courts of the states; in some cases, appeals may go from the Federal and Family Courts to the High Court.

The system ensures that only a case involving large sums of money or important legal problems is likely to be heard by the High Court. Constitutional cases are likely to reach the High Court. However, fewer criminal cases will be heard by the High Court than by the US Supreme Court because of the absence of federal constitutional rights.

The Australian legal profession is predominantly state centered. A person entitled to practice law in any state or territory is also entitled to practice in any federal court.

The legal profession in all states began under the influence of the English system which distinguishes between "solicitors" and "barristers." Solicitors keep offices and deal directly with and advise clients, draw up documents, and prepare cases for trial; barristers deal not with clients but with solicitors and argue cases in courts.

However, partly due to the small Australian population and to the scarcity of lawyers in the early days and partly due to radical reformers who disliked the English system, there were moves toward having lawyers act as both solicitors and barristers as in the United States and Canada.

Appointment of judges from the ranks of the legal profession is in the hands of the prime minister or premier and the attorney general. In no case are judges elected.

Once appointed, judges remain on the bench until age 70 with their salaries constitutionally guaranteed. They can be removed by Parliament on the grounds of proved misbehavior or incapacity.

Magistrates of the courts of summary jurisdiction are appointed from the ranks of the legal profession, like judges, and from the administrative staffs of the courts. Before appointment, they are required to pass law examinations. Magistrates are required to retire at age 65; they can be removed from office earlier for misbehavior or inability to perform their duties. Their independence is respected, but it does not have the same degree of legal guarantee as does that of judges. No judge or magistrate has ever been removed from office in Australia.

Australia still retains the English style of dress for judges and for advocates appearing in the intermediate and higher courts. They wear wigs, gowns, and neckwear similar to English styles with minor variations on ceremonial occasions. Neither magistrates nor advocates in courts of summary jurisdiction wear such dress; they wear traditional business suits. There is considerable support for abandoning or modifying formal wear in the higher courts, but this is opposed by a large majority of judges and a smaller majority of practitioners. However, in the Family Court, the emphasis is on informality; judges and lawyers wear business suits.

The argumentative style followed in Australian courts is also English rather than North American; there is a considerable emphasis on logical analysis. Although the decisions of the English courts are not binding on Australian courts, they are still freely and frequently cited and treated with more respect than are the decisions of any other judicial system outside Australia.

Australians are not a particularly litigious people. The relatively small population and economy result in fewer illustrative cases; consequently, there is a continued reliance on English precedents.

Even the architecture and seating arrangements of Australian courts tend to be English rather than North American in style. In the Anglo-Australian style, the arrangements are vertical and restricting. The judge is on a high bench well above the level of everyone else. Barristers and their instructing solicitors are on opposite sides of long tables in front of the judge. A witness box is off to one end and court officials are at the other. The seating arrangement prevents much movement by barristers while addressing the court, even if the accepted standards of forensic good manners allowed it. The hierarchical and restricting design contributes to the formal style of address.

Reflecting an age of law reform, the Commonwealth of Australia and each state and territory has a law reform commission or committee. Proposals for radical change in every aspect of the law are made by a large variety of organizations. The law reform movement has affected the substantive law more than the judicial and court structure; however, this structure probably will increasingly come under critical inspection in the future.

THE STATES AND TERRITORIES

For map of states and territories
with capital cities, see page 3.

Western Australia

Western Australia comprises one-third of the continent, an area equal to the whole of Western Europe. The state pours forth a significant part of the world's gold, pearls, nickel, iron ore, bauxite, salt, and mineral sands. Today it is poised on the edge of new discoveries of oil, natural gas, and perhaps diamonds.

For centuries the area that is now Western Australia was shunned by maritime explorers as a harsh and sterile wasteland. However, in 1829 two ships were dispatched from England to the Swan River on the west coast of Australia. The first, HMS Challenger, took formal possession of Western Australia. It was followed by HMS Parmelia, a tiny bark crammed with settlers, livestock, and equipment. It also carried Lieutenant Governor Captain James Stirling who was instructed to establish the colony and name its chief town Perth after the ancient capital of Scotland.

The new colony suffered extreme hardship and near starvation. In 1850 convicts were sent from England to assist the settlers. By 1868, when the last convicts arrived, there was confidence and purpose among the colonists with wool, wheat, and timber providing good incomes.

The 1890s were momentous years. A series of gold discoveries brought rapid increases in population and prosperity; since 1897, the state has been Australia's leading producer of gold.

Mining difficulties were far greater in Western Australia than in other parts of the continent. The principal goldfield in Kalgoorlie was a barren, waterless region remote from supply centers. Establishment of a pipeline to carry water 600 kilometers was a remarkable enterprise for its time. (See Gold, Appendix.)

Western Australia became a state of the new Commonwealth of Australia in 1901. The Trans Australia Railway, linking the state with the eastern coast, was completed in 1917.

In the 1960s, massive reserves of iron ore were discovered in the Pilbara region. Also, a nickel find in 1966 near Kalgoorlie, by this time living on its memories of the dramatic gold rushes, precipitated a new invasion of mining activities.

Oil rigs were operating at Barrow Island off the northwest coast by 1966; in 1971, a gas field at Dongara began to supply Perth and its nearby industrial areas.

Mineral sands production has risen to 90 percent of the nation's total, common salt to 80 percent, and alumina to 50 percent. There are coal reserves of 400 million tonnes, and uranium reserves of 46 000 tonnes. In addition, promising reports are made of diamond prospects in the far north of the state.

By the mid 70s, minerals were providing more than half the state's income, but the best may be yet to come. Large gas and oil deposits are being tested beneath the deep waters of the continental shelf off the Pilbara coast.

Off the Western Australian coast, the North West Shelf Project, which will produce natural gas for the home market and liquid nitrogen gas for export, is a multibillion dollar project which is due to begin producing in 1986.

Western Australia's river system includes the Swan River of the southwest, the Blackwood, the Gascoyne, the Drysdale, the Murcheson, the Ashwater, and the Fitzroy to the north. Lake Lefroy, near Kalgoorlie, and Lake McLeod, near Port Hedland in the Pilbara, are vast expanses of salt lakes; there is a small coastal lake system along the southwest coast.

Western Australia is a young and rapidly developing state with the majority of people living in the urban complex surrounding Perth in the southwest. Perth, which once faced starvation, continues to have the reputation of the most isolated capital in the world. A city of 866,000, it enjoys a superb climate with an average of 7.8 hours of sunshine daily.

South Australia

South Australia occupies the central portion of southern Australia. It covers an area of 984 000 square kilometers and therefore is about four times the size of the United Kingdom, twice the size of France, and half as big again as Texas. It has a population of 1,360,000 of which 900,000 live in a Mediterranean-type climate in the capital, Adelaide.

Due to the foresight of its founders, Adelaide is a model city--spacious, ordered, and surrounded by greenbelts. It is recognized as one of the best planned cities in the world.

South Australia is the driest state in Australia. Four-fifths of the state gets less than 250 millimeters of rain a year. Adelaide, in one of the higher rainfall areas, averages only 533 millimeters per annum. The climate is seasonal with a hot, dry summer, mild autumn, a cool wet winter from June to August, and a mild spring.

The principal geographic features are two gulfs, Spencer and St. Vincent, that roughly bisect the coastline. Adelaide is situated halfway up the eastern coast of St. Vincent Gulf. A number of lakes in the northeast part of the state are usually vast deserts of salt. In the rare periods of adequate rain, they become centers of plant and animal life for a short time.

Other major geographic features include the River Murray and the Flinders and Mount Lofty ranges. Most of the state is desert. However, irrigation from the River Murray and from vast stores of artesian water and desert reclamation projects make the state highly productive agriculturally.

For the first 100 years, South Australia survived mainly on primary production despite having only 15 percent of available land suitable for crops or pasture improvements. Since 1945, secondary industry has expanded. Today 43 percent of the work force is employed in secondary industries compared to 10 percent in primary industries. However, primary industry is still the chief source of the state's export earnings. Japan is the state's main trading partner followed by the Soviet Union. General Motors-Holden and Mitsubishi Australia have major automotive factories in Adelaide.

Manufacturers of refigerators and other home appliances have plants in Adelaide. Research centers provide a base for the technological industries.

South Australia's major oil refining installation is in Adelaide's southwestern suburbs at Port Stanvac, a deep sea port.

At Roxby Downs in desert country north of Adelaide is probably the world's biggest copper deposit. Its potential is still being assessed. The deposits are also associated with uranium and gold. Mining experts say Roxby Downs could be classified as the world's single richest new concentration of minerals discovered in 50 years.

In recent years, the sluggish world economy and changes in Australia's economy have created major problems in South Australia. Unemployment has been serious. The development of natural resources is seen as one way to alleviate many of the problems and to spur employment.

Victoria

Victoria occupies only 3 percent of Australia. It is the nation's second largest state in population, New South Wales being the most populous. Most persons live in the capital city, Melbourne, Australia's second largest city after Sydney.

Victoria was first settled in 1835. The discovery of gold in 1851 spurred rapid expansion; within 10 years, the population had reached 538,000.

Occupying the southeastern corner of the continent, Victoria is slightly larger than Utah. Virtually all the state falls within a warm, temperate belt characterized by hot summers and cool to mild, wet winters. There is snow on the Alps from June to September.

Apart from the heavily timbered mountain regions in the northeast, east, and central west, Victoria's terrain is generally open, rolling country. The River Murray forms the northern border with New South Wales. Other important rivers are the Goulburn and the Glenelg.

Victoria's 1800-kilometer coastline borders on the Bass Strait which separates the Australian mainland from Tasmania. On the west, is the Southern Ocean. The coastline is generally rugged but includes many wide, sandy beaches and three large, almost fully enclosed harbors. The most important of these is Port Phillips Bay where Melbourne and Geelong are located.

One-quarter of Victoria is reserved forest and national parks, and large lakes are found in many parts of the state.

January and February are the hottest months. Periods of several days of extreme heat when temperatures rise toward 40 °C occur throughout most of the state. Average winter temperatures drop from below 10 °C along the coast to 16 °C inland.

The state's wool, sheepmeats, beef, wheat, fruit, and dairying account for nearly 90 percent of the national output. Victoria accounts for a majority of the nation's export trade in milk, cream, butter, and mutton. More than one-third of the state is forest with eucalyptus managed for wood products.

Enormous reserves of brown coal are found in Gippsland. Development of the coal for electricity and town-gas began in 1921. Today, the long-term economics of using brown coal for conversion into synthetic oil and other products is being studied by the state government and private industry.

Industry has been given added impetus since 1965 by the development of large oil and natural gas fields off the coast of eastern Victoria. These account for 90 percent of Australia's domestic oil production and about 60 percent of the nation's crude oil needs. They assure Victoria a gas supply for industrial and home use well into the next century. About $1 billion has been allocated for exploration and development of the Bass Strait fields in the next decade.

Victoria is a major center for textile and automobile industries and has substantial oil refineries and petrochemical works. While New South Wales concentrates on heavy industry, Victoria has mainly developed light industry.

Melbourne is the site of about 85 percent of Victoria's factory output mainly in heavy engineering, textiles, and metal processing. Also, it is a major financial and communications center. The Port of Melbourne is the largest in the state and among the 10 largest container ports in the world.

Melbourne is unique in Australia in that it has retained its tram (streetcar) system to supplement an extensive, electrified suburban rail and bus network.

Geelong and its suburbs (population 138,000) is the largest urban area outside Melbourne. Located about 70 kilometers southwest of the capital, it is a major port, industrial center, and marketing point for primary produce. Its heavy industry includes an oil refinery and motor vehicle plants.

Ballarat, about 100 kilometers northwest of Melbourne, is the state's largest inland city. The site of a major goldfield in the 1850s, it is better known today for manufacturing and as the center of a fine-wool growing district.

Tasmania

The islands of Tasmania, Australia's smallest state, lie south of Melbourne across the rough waters of Bass Strait. The main island is surrounded by a number of smaller islands such as King Island, Flinders, and Bruny. To the far south near Antarctica lies Macquarie Island, also a part of Tasmania.

The area of the main island of Tasmania is 68 331 square kilometers, and its population is 417,000. Hobart is the capital and has 40 percent of the state's population.

Tasmania is mountainous with a central plateau. Between the central plateau and a mountainous region in the northeast corner lie the Midlands, one of the state's richest agricultural areas.

Tasmania has the highest average rainfall of the Australian states. Annual rainfall can be as high as 3600 millimeters in the west and as low as 500 millimeters in the east. In higher areas, mean minimum winter temperatures can fall to 0 °C. In the lowlands, mean maximum summer temperatures can exceed 23 °C.

Tasmania is known as the Apple Isle and is a large exporter of apples and vegetables. Hops, grown in few places in the world and extremely valuable, is the main crop of the Derwent Valley. In recent years, there has been an increased emphasis on raising livestock for meat production.

Forests cover approximately 41 percent of the state. Most of the timber cut is native hardwood; however, plantations of exotic softwoods are being established. As well as supplying materials for the construction industry, the forests provide paper products, woodpulp, hardboard, particle board, and plywood. In recent years, a vigorous industry of exporting woodchips to Japan has emerged.

Tasmania has significant deposits of a number of minerals. The richest deposits are found in the rugged western region of the state and often present difficulties of access and transport. The state produces 66 percent of the nation's tin and some 10 percent of the copper, zinc, silver, and gold. There are smaller deposits of black coal and lead. The processing of copper and zinc ores supplies about 37 percent of the nation's sulphur.

Fishing is another important primary industry in Tasmania with 1,460 licensed fishermen operating from 650 licensed vessels. The annual catch includes scale fish, shark, scallops, oysters, abalone, and crayfish.

A relatively high degree of industrialization when compared to the other states produces a wide range of goods. Included are foodstuffs, textiles, clothing, footware, transport equipment, and household appliances.

In the summer, tourists are attracted to Tasmania by its lush vegetation and spectacular scenery.

Australian Capital Territory

The capital of Australia, Canberra, is located in the Australian Capital Territory (ACT). The federal territory is 2357 square kilometers of land that up to 1909 was part of New South Wales. In addition, Jervis Bay on the New South Wales coast is part of the ACT. The Bay fulfills a 1908 law stating the seat of government shall have access to the sea. The ACT lies on a direct air route between Sydney and Melbourne and is administrated by the federal government and an advisory House of Assembly.

The ACT consists of three contrasting landforms. In the north, where urban areas have developed, is a lowland of undulating hills and the floodplains of two rivers. Beyond this are forested mountain slopes rising to 1200 meters and divided by numerous tributaries of the Murrumbidgee River. In the south and extreme west is an upland of steep ridges and mountain peaks.

Canberra, in the lowland, has an annual rainfall of about 625 millimeters unevenly distributed throughout the year. In most years, there are light snowfalls. Strong winds are frequent, mainly from the west and northwest. The mean maximum temperature is 19 °C with the mean minimum 6 °C.

In an international competition in 1912, a design by Chicago-born architect Walter Burley Griffin was chosen for the new capital city. Work began on Canberra the following year. By 1927, sufficient construction was completed to enable the Parliament to be transferred from Melbourne. The Depression of the 1930s and World War II slowed down much of the development of the city. However, Canberra is now the largest inland city in Australia and the nation's fastest-growing. The population is 241,000.

From the beginning, Canberra was intended to be a city of great beauty, a garden city in the full meaning of the term. In 1958, the National Capital Development Commission (NCDC) was established to modify the original architect's plan in the light of modern needs. In 1963, the NCDC completed a large central lake system, Lake Burley Griffin, with a shoreline of 35 kilometers.

The ACT is the site of the Australian Academy of Science, the Institute of Anatomy, the headquarters and seven operational divisions of the Commonwealth Scientific and Industrial Research Organization, three major tracking stations operated in association with the US National Aeronautical and Space Administration, two communications bases of the Royal Australian Navy, the Royal Military College, a base of the Royal Australian Air Force, the Australian War Memorial, the National Library, the National Gallery, the High Court, and the Canberra School of Music.

The majority of persons living in ACT are employed by the government. As a result, fluctuations in government activities directly affect the level of employment. In recent years, the policy has been to reduce the government sector. Therefore, there has been little growth in the ACT. Manufacturing, which employs a few people, and tourism are the only other areas of employment.

New South Wales

Of the six Australian states, New South Wales is the oldest, most populous, and most industrial. It has an area of 801 431 square kilometers and a population of 5,078,000. Sydney, its capital, is the largest Australian city (population, 3,193,300) and has one of the best harbors in the world.

North of Sydney is the city of Newcastle, center of one of Australia's largest coal and steel complexes. About 80 kilometers south of Sydney is another major coal and steel center at Wollongong.

Originally, all Australia east of the 135th meridian was New South Wales. Gradually, with the creation of other states, it was reduced to its present 10 percent of Australia's total area.

Natural features divide the state into the following four main zones, extending from north to south:

Seaboard and Coastal Lowlands

The state's coastline is 1460 kilometers long, broken by few inlets of any size.

Tablelands

Formed by the Great Dividing Range, the tablelands comprise an almost unbroken series of plateaus. The Snowy Mountains region contains the highest peak in Australia, Mount Kosciusko (2228 meters high).

The tablelands are primarily a grazing area for sheep (for wool and mutton), but there are pockets of general agriculture in areas of rich volcanic loams.

Western Slopes

This is a fertile, undulating region with rich plains along the rivers and with some rugged areas. Regular, adequate rainfall has led to extensive cultivation.

The western slopes is a major area for raising sheep and beef cattle and for growing wheat.

Western Plains

The area comprises nearly two-thirds of the state. The soil is fertile, but poor rainfall and limited river water prevent it from realizing its potential.

The eastern part of the western plains is the main wool and wheat producing area of the state.

Northern Territory

Most of the Northern Territory lies in the Tropics. It comprises about one-sixth of the Australian continent but has less than 0.75 percent of the population. For more than 150 years, the Territory has been the problem state of Australia. The harsh climate and the frontier lifestyle have made life there difficult.

The Northern Territory coastline is generally flat, backed with swamps and mudflats rising to a plateau. In central Australia, it is crossed by the east-west ridges of the MacDonnell Ranges. The northern quarter, known colloquially as the Top End, is a distinct region of savannah woodlands and pockets of rainforest. Much of the southern three-quarters of the Territory consists of desert or semiarid plain.

In the north, monsoonal influences produce two definite seasons: "the wet" (November to April) and "the dry" (May to October) when normally no rain falls. The coast is subject to tropical hurricanes or typhoons during the wet season.

The first known European contact with the coastline of the Northern Territory was in 1623 by a Dutch ship. Not until 200 years later was a settlement established there.

In 1818, the British government was alerted to the need of establishing a settlement on the north coast of Australia to discourage possible French territorial interests. From 1818 to 1869, five attempts were made to establish a permanent settlement on the northern coast. Tropical diseases, scurvy, and attacks by Aboriginals forced abandonment of one settlement after another. A settlement at Port Darwin was an eventual success.

Of the Northern Territory's present population of 115,900, some 25 percent are Aboriginals and 35 percent were either born overseas or are the children of persons born overseas. Included is a Greek community of 5 percent and an Asian community of 2 percent. Altogether, there are 47 different nationalities represented.

The constitutional development of the Territory to its present self-government, the final stage before full statehood, started over 150 years ago. At that time, Captain J. J. Gordon Bremer took possession of the northern Australian coastline for Britain as part of the colony of New South Wales.

In 1974, a fully elected Legislative Assembly of 19 members was established, and the federal Parliament passed an act giving the Territory two senators. These steps were the beginning of the evolution of executive responsibility from the federal government to the Territory.

Forty percent (50,612) of the people of the Territory live in Darwin. Most of the others live in towns strung out along "the track," a highway which joins Darwin to the south.

Sparse population--one person for each 12 square kilometers--is a problem in the Northern Territory. To help solve the problem, the state government attempts to attract people from other parts of Australia by tax concessions for companies and help with housing for families.

As the Northern Territory has no coal, it has to be shipped interstate. However, there are substantial prospects for natural gas and, to a lesser extent, for oil.

Mining of uranium and other minerals is the Territory's largest industry and has played a major role in its development. Gold was discovered in the Territory in 1865. However, it was not until after World War II that stability came to the mining industry with the opening of a gold mine at Tennant Creek in 1949.

In the mid-60s, mining for manganese started in the Gulf of Carpentaria. One company annually mines approximately 2 462 000 tonnes of ore. With its annual sales to Japan, the United States, and Europe, the company is a leading supplier to the world's steel industry.

In the early 70s, development started on huge bauxite deposits east of Darwin. This joint venture between a Swiss aluminum company and an Australian company has grown into the Territory's largest mining enterprise.

A number of uranium projects are being developed under federal guidelines. Despite the importance of all mining to the Territory's economy, strict environmental safeguard policies are being followed.

Tourism is the Territory's second largest industry. Darwin is a base for tours of the surrounding tropics, teeming with wildlife from buffalo to butterfly, curlew to crocodile.

South of Darwin, just below the Tropic of Capricorn, lies the town of Alice Springs. The spectacular folds, deep gorges, and colors of the MacDonnel Ranges close to "the Alice," as it is called, are famous because of their depiction in paintings by Aboriginal landscape artist Albert Namatjira. A major tourist attraction southwest of Alice Springs is Ayers Rock, the earth's largest natural monolith which rises 348 meters from the surrounding flat, sandy plain. The massive form of red sandstone is nine kilometers in circumference.

The top four industries in the Territory--mining, tourism, fishing, and cattle--showed a 30 percent rise in output value in the Territory's first year of self-government.

Queensland

Queensland is Australia's second largest state in area, covering 1 728 000 square kilometers. With 15 percent of the nation's population (2.2 million), it is the third most populous state. Occupying 22.5 percent of the continent in the northeast, Queensland is one-fifth the size of the United States.

The capital is Brisbane, which is on the Brisbane River on the state's southern coast. Unlike other Australian states, there is considerable decentralization in Queensland. Three cities in addition to Brisbane have populations over 50,000. The state's population is increasing faster than the average of other states due to the numbers of people from Victoria and New South Wales moving to the warmer areas of Queensland.

Queensland is essentially a state of great plains that merge into higher country of sharper relief to the east and northwest. To the north, the country falls gradually to meet the coastal plain which reaches the Gulf of Carpentaria as a broad tract of salt flats. The far northwest is occupied by a rugged uplands region rich in minerals. Eastward, the country slowly rises toward the Great Dividing Range which runs from the southern border to the northern tip of Queensland. East of the Great Dividing Range, the country drops seaward in a jumble of ranges separated by lowlands. This structure is continued in a chain of mountainous, offshore islands sitting on the continental shelf. Beyond them is the Great Barrier Reef, a series of coral formations stretching for about 2000 kilometers.

With the Great Barrier Reef and the sunshine of the coast, Queensland is a major tourist attraction for many Australians. Brisbane averages 7.1 hours of sunshine a day in winter. Inland, the days are warm and sunny, the nights cold and frosty, particularly in the south. Queensland's wet season is from December to March when northwest monsoons sweep down from Asia and destructive cyclones are prevalent.

Queensland is mainly an agricultural state, producing most of Australia's sugar and much of its beef. However, the state also has some of the world's richest mineral deposits such as copper, lead, zinc, bauxite, and uranium. Coal is the state's most important mineral. Oil from Australia's first commercial field at Moonie is piped to Brisbane as is natural gas from Roma. Large deposits of shale oil have also been found but are unlikely to be developed for several years due to technological problems.

Most early Queensland settlers were from Britain and other European countries. In recent years, there has been an increasing number of immigrants from Southeast Asia. About one-third of Queenslanders are migrants or children of migrants. Aboriginals and Torres Strait Islanders comprise about 2 percent of the population. Many who live in tribal communities retain their traditional ways of life.

THE AUSTRALIAN ECONOMY: A SURVEY

Economic Development

Australia is a wealthy, developed nation that possesses an abundance of resources ensuring a sound future. Until World War II, agriculture was the mainstay of the economy. After the war, the manufacturing industry grew rapidly. In the 1960s and 70s, service industries accounted for the greatest expansion in the economy.

Today, primary industry accounts for about 10 percent of production and tertiary industry for about 65 percent. The remaining 25 percent can be attributed to manufacturing which is also the largest employer. Manufacturing industries include iron and steel making, motor vehicles, oil refining, textiles, and clothing.

Despite its industrialization, Australia is still a major producer and exporter of farm products. It is the leading world producer of wool and a major producer of wheat, sugar, and fruit.

In recent years, there have been significant changes in the structure of the economy. The production of minerals has greatly increased, and the manufacturing industry has been restructured.

As with many other nations, inflation and unemployment have been major problems during the last 10 years. At present, unemployment is expected to remain around 5 percent. The government assists unemployed persons through various programs but expects the private sector to provide the necessary employment. Inflation is under 10 percent per annum, below that of many of Australia's trading partners.

The present government policies of fiscal and monetary restraint are unlikely to change, especially as unemployment levels steady.

International Trade

Australia currently ranks 16th among nations in world trade, a relatively small role; however, it is a major supplier of numerous commodities. It is the world's largest exporter of wool, beef, alumina, iron ore, lead, and mineral sands. It is also among the top two or three suppliers of sugar, wheat, coal, nickel, and zinc. In the past 10 years, agricultural exports have declined while mineral exports, particularly coal and iron ore, have expanded rapidly.

In recent years, there has been a considerable increase in the amount of investment capital going to Australia. Much of this is for major projects, especially in the mining industry.

Imports are mainly producer materials. Capital equipment, including mining and construction equipment, has increased and is expected to continue to increase.

Of significance in the post World War II period has been the change in the direction of Australian trade. Before the war, 50 percent of Australia's exports went to Britain which provided Australia with 40 to 50 percent of its imports. This relationship drastically changed during the 50s and 60s. By 1964-65, Britain took only 19 percent. This percentage further declined after Britain entered the European Economic Community and stood at 4 percent in 1978-79. Similarly, imports from Britain have declined; by 1978-79, they accounted for 11 percent of Australia's imports.

Today, Australia's major trading partner is Japan, the biggest buyer of Australian iron ore, sugar, coal, and wool. Japan also provides Australia with nearly 20 percent of its imports; in 1948-49, Japan provided 1 percent. The USA is the major source of Australia's imports; despite being the major customer for Australian boneless beef, it runs up a trade surplus. Asian markets are developing with China buying large quantities of wheat since the early 60s. Although New Zealand provides the main market for Australian manufactured goods, the European Economic Community is becoming more important.

Australian government policy is aimed at developing international trade. For example, Australia was an original signer of the General Agreement on Tariffs and Trade (GATT). It has also entered into bilateral trade agreements with a variety of nations and is a member of the UN Conference on Trade and Developments which is primarily concerned with problems of developing countries.

In the future, Japan will probably continue to dominate Australian trade. In addition, the developing countries of southeast Asia will likely seek increased access to the Australian market, especially for clothing goods.

Rural Industry

Much of Australia's wealth has always stemmed from the prosperity of the rural sector. Some 65 percent of the land is devoted to agriculture. Of this, 3 percent is devoted to crops, 5.5 percent to sown pastures, and the large majority that remains to rough, open grazing land for livestock.

Recent trends have been to consolidate farms into larger, more economical units. As a consequence, the number of persons living in the country has declined.

The capacity of Australia to produce agricultural products is dependent on the state of world markets and on physical restraints such as droughts or floods. In some areas such as the Murray Valley area, irrigation is used. The government provides considerable assistance including marketing and tax aid, subsidies, and protective tariffs for farmers.

The following products are expected to continue to be of major importance to Australian economy despite the risks of adverse weather.

Wheat

Wheat is Australia's main crop and a principal source of rural income. About 80 percent of the annual wheat crop is exported to over 44 countries. The major buyers are the Soviet Union, China, Egypt, Japan, Iraq, Iran, Indonesia, Malaysia, and Singapore. Australia's soil and climatic conditions favor the production of wheat in all states except Tasmania.

There are about 50,000 farms that grow 10 hectares or more of wheat, mostly within a mixed farming system. The usual pattern is for wheat to be grown in rotation with pasture on which sheep are grazed. However, other crops and beef production are also often linked with wheat.

The Australian wheat industry is noted for a high degree of mechanization, emphasis on scientific research, and its orderly and centralized marketing system.

Sheep

Australia is the world's leading wool producing and exporting nation. In fact, a popular saying is that Australia rode to wealth on the back of a sheep. To some extent this is true. Today, Australia has about one-sixth of the world's sheep. In 1981, the number of sheep in Australia was 132.3 million.

In the dry, sparsely vegetated inland regions of Australia, sheep can be grazed successfuly on low-growing scrubs. Sheep are mustered (rounded up) only once or twice a year for shearing and veterinary attention.

Many farmers in areas of higher rainfall and more fertile soil combine sheep and crop-growing or sheep and cattle, based on market and seasonal prospects.

In the 1970s, a large live-sheep export industry developed, mainly directed to Middle Eastern countries. In the early 80s, 5.68 million live sheep were exported annually from Australia. Exports of wool in all categories were estimated at $1.9 billion a year out of total agricultural exports valued at $8.5 billion.

Australians eat a large amount of lamb. The per capita consumption is around 14 to 16 kilograms per year. Australia is the world's largest exporter of mutton.

Beef

Half of the beef and veal production is exported with beef prices strongly influenced by those in the United States.

Most of the cattle are of British breeds such as Herefords; however, Brahmin are also raised. Cattle are found throughout the nation with Victoria and Queensland the major cattle producers.

Pork and Poultry

Most of the pork and poultry raised in Australia stays in the country. Formerly linked with dairying, pork today is a specialized industry in its own right. It is based on intensive rearing of grain-fed pigs.

Dairying

Most dairying activity is located in the temperate areas of good rainfall--the southwestern portion of Western Australia, the Adelaide area in South Australia, the Gippsland area of Victoria, northern Tasmania, along the New South Wales coastline, and the southwest area of Queensland.

However, due to increased costs and decreased overseas markets, especially in Europe, the dairying industry is on the decline. At home, the consumption of dairy products has also diminished. The only dairy products predicted to be strong in the future are cheese and wholemilk powder.

Sugar

Australia is second only to Cuba as an exporter of sugar. About 95 percent of the production comes from Queensland with the remainder from the coast of New South Wales. More than one million tonnes are annually exported under long-term commercial contracts.

The industry is highly mechanized and regulated. It is continuing to grow; in the future, it may be expanded to an irrigated area of northern Western Australia.

Fish

Depite its long coastline, Australia is not well endowed with fish resources. The most important fish marketed are tuna, salmon, shark, whiting, and snapper. The most valuable are prawns and rock lobster. All abalone caught is exported, while large quantities of frozen fish are imported. However, exports do exceed imports.

Other Agricultural Products

Summer grain crops, maize and grain sorghum, are grown mainly in Queensland and New South Wales. Most of the maize is used domestically while 60 percent of the sorghum is exported.

Papua New Guinea is the largest overseas market for rice which is grown almost exclusively in the irrigation areas of New South Wales.

For over a century, cotton was grown in southeast Queensland but did not meet the needs of the domestic market. In the early 60s, the Raw Cotton Bounty Act was passed, and the industry was expanded. Cotton began to be grown in irrigated areas; as a consequence, there is now enough to export.

A wide variety of fruits are grown in Australia because of the varied climate. Citrus crops are grown in the irrigated Riveriana areas of New South Wales, Victoria, and South Australia. Known around the world are the Barossa Valley vines of South Australia. Northern New South Wales and Queensland produce most of the bananas with a small percentage grown under irrigation in Western Australia. Queensland is the main center for pineapple and other tropical products. Much of this goes into the canning industry, both for domestic and export markets.

Surrounding all major cities are vegetable suppliers. Some of the fresh vegetables are frozen and exported to Japan and Singapore.

Manufacturing Industries

Soon after European settlement, manufacturing began to develop. During the latter part of the 19th century, industries were established to produce goods formerly imported. These goods included chemicals and railway locomotives.

The two world wars, accompanied by Australia's isolation from suppliers, provided great stimulus in developing manufacturing. After World War II, new industries emerged including motor vehicle manufacturing; oil refining; and production of petrochemical, paper, plastic, and some nonferrous metal products.

Manufacturing industries grew in the 50s and 60s encouraged by increased migration, government protection, and bouyant markets. Growth especially took place in the heavy industries such as iron and steel manufacturing, despite the constraints of a small domestic market.

Today, about one million of the nation's five million workers are employed in manufacturing. However, there are signs that the industry's importance to the economy is declining. The number of persons employed in the automobile industry, for example, has decreased. Attempts are being made to diversify automobile manufacturing into high technology industries. Also, Australians seek to enter into agreements with international companies to allow Australian industries to make specialized components in projects such as the world car concept. This idea would allow Australians to produce the engines for one make of vehicle while other parts are made elsewhere.

To encourage the growth of a substantially self-sufficient automobile industry, the Australian government has also established local content manufacturing plans. Local content is measured by subtracting from the wholesale price of a vehicle the landed, duty-free cost of its imported components.

Australia has five companies making cars under an 85 percent Australian content plan--General Motors-Holden's Proprietary Limited, Ford, and three Japanese companies, Toyota, Nissan, and Mitsubishi. Their locally made vehicles comprise about 80 percent of the new cars registered in Australia. Of those exported, 90 percent go to New Zealand.

Centers for Australia's steel industry are located on the coast of New South Wales at Port Kembla and Newcastle. The two centers produce pit iron and ingot steel. While Australian steel prices are not as competitive as they once were, the industry's basic advantages of raw material sources and technical skills is expected to keep it among the world's leaders in efficiency.

Activity in manufacturing industries also includes the following:

- The Australian aircraft industry produces the Nomad turboprop and manufactures parts for the Boeing 727 aircraft.

- A wide range of products is manufactured at major petrochemical complexes near Sydney and Melbourne.

- Although 42 percent of imports are related to engineering, local engineering companies export machinery and transport equipment.

- Australia is a major foods surplus country; food processing accounts for 17 percent of total employment in manufacturing.

- Australia's shipbuilding industry, once considerable, is concentrated in the construction of small to medium sized ships such as small trading vessels, passenger ferries, naval patrol boats, and oil rig service vessels.

- The woodpulp industry, represented by 17 mills, provides 70 percent of local consumption. Concern is expressed by many that the industry is not replacing cut trees with native trees and that this is changing the environment.

- The clothing and textile industry is modern and well equipped. It supplies most of the domestic needs despite cheaper imports in recent years.

Energy Resources

Australia has more energy per capita than any other country in the world.

At present, Australia produces about 65 percent of the oil it needs. Oil is found in all states except Tasmania. Australia's main source of oil is the Gippsland Basin fields. Recent discoveries have raised estimates of liquid reserves in the Gippsland Basin to ensure that current daily output of about 400,000 barrels of oil will be maintained until the mid-1980s.

However, there have been no significant new discoveries outside the Gippsland Basin since the 1960s. Therefore, although Australia has assured natural gas reserves for years ahead, the level of self-sufficiency in oil is declining. Because of the high cost of imported oil, Australia is seeking a major exploration breakthrough and hopes for new discoveries.

The search for petroleum has been more successful in finding gas than oil. All states except Tasmania have access to natural gas, which is expected to make strong gains as an Australian energy source. Since 1971, Western Australia has obtained its natural gas from the now declining Dongara field. This source is expected to be succeeded by gas from the North West Shelf, a vast offshore sedimentary region. (See Appendix D, "The Loneliest Gas Field in the World.")

Australia has large deposits of coal, an estimated 4 percent of the world's known deposits. At current rates of production of 85 million tonnes of raw coal a year, Australia's coal could last 2,000 years.

On the Australian mainland, hydro-electric power generation is concentrated in the Snowy Mountains Scheme in southest New South Wales. One of the world's largest irrigation and power projects, the Scheme diverts water from coastal watersheds. It uses the water for electric generation and then to feed and supplement the Murray and Murrumbidgee Rivers for irrigation.

At present, most of Australia's energy is supplied from coal, oil, gas, and hydroelectric power with some from solar energy. There are no electric generating nuclear power stations despite Australia's having considerable reserves of uranium.

Attempts are being made to find alternatives to conventional energy sources and to reduce the nation's dependence on imported oil. Interest is focused on oil shale, oil from coal, methanol, ethanol, and other renewable energy sources such as solar energy and wind power.

Shale oil is one of Australia's most promising alternative liquid fuel resources. It could provide a substantial amount of the country's liquid fuel needs before the end of the decade. Deposits of shale lie under 700 000 square kilometers of Queensland with smaller reserves in New South Wales, Tasmania, and Western Australia. The deposits were formed millions of years ago in lakes, the sea, and coal swamps. The oil would be extracted from organic matter known as kerogen, formed as part of the shale.

Coal is seen as a promising source of synthetic fuel. With present technology, production could occur by 1990 and be substantial by 2000. A feasibility study with West Germany, the United States, Japan, and Britain has commenced. Under consideration is a three million-tonne a year coal liquefication plant; with various coals being assessed for suitability.

Solar energy is coming into wider use throughout Australia in homes and industry. Estimates indicate solar energy could provide about 10 percent of Australia's energy needs in the future.

Overall, the largest growth forecast in energy use is for coal. To meet significant increases in energy demand, domestic coal use (black and brown) should increase by 76 percent over the decade. Coal should regain its former position over oil as the major fuel used in Australia, accounting for almost half of the demand by the end of the 1980s.

Mineral Deposits

Since the first discovery of gold in the 1850s, Australia has gained much of its wealth from minerals located beneath its soil. Today the mineral industry is Australia's fastest growing industry, totalling 40 percent of all exports. Japan plays a large part in this market, taking 50 percent of Australia's mineral and metal exports.

The mining industry is efficient, has low operating costs, and has tremendous potential. New mineral developments are on a huge scale. For example, 10 ore trains a day leave Mt. Newman in the Pilbara iron ore area of Western Australia for Port Hedland 425 kilometers away on the Indian Ocean. The trains are each 1.6 kilometers long and are pulled by three locomotives. At Mt. Newman is the world's largest single pit iron mine. Since 1978, Australia has become the world's third largest exporter and producer of iron ore.

The cost of new developments is also immense, with much of the funding coming from overseas. The degree to which other countries should control the industry has been a matter of political debate for many years.

Australia is the largest bauxite and alumina producer and exporter of alumina in the world. Many of the world's aluminum manufacturers have set up plants in Australia. One attraction is the plentiful supply of electricity. Foreign companies are expected to continue to provide much of the industry's capital and technical and marketing expertise.

Australia is a major producer of lead, zinc, copper, and nickel. It is the leading world producer of heavy mineral sand concentrates which are important in developing advanced metals.

Gold is still mined in the Kalgoorlie, Western Australia and Tennant Creek, Northern Territory areas. The mining depends upon the price of gold in world markets and thus is subject to fluctuation. Recent increases in gold prices assure most mines of continued operation.

Australia produced uranium in the 1950s, ending in the early 60s. However, since 1970, about 500 000 tonnes have been discovered making Australia one of the biggest potential suppliers in the world. The recent discoveries of uranium have been found in the Northern Territory on or near Aboriginal land.

Australia's uranium export policy requires approval for project development to be given only after environmental requirements are met. Also, the government's foreign investment policy must be complied with, and arrangements must be made with Aboriginals when appropriate.

Depite government policy, there is still considerable opposition by many persons toward mining and exporting the ore. The opposition has delayed approval for mining in New South Wales and held up shipments in the Northern Territory. However, the total value of Australia's uranium exports, at current prices, could reach $1.5 billion a year soon after 1985.

Other significant minerals produced include managanese, silver and tungsten concentrates, and fossilized minerals. The only major minerals that Australia imports in any significant amount are limestone and phosphate rock.

AUSTRALIAN CULTURE AND SOCIETY

Education

Australian states are responsible for providing education, according to the nation's constitution. The Commonwealth is responsible for education in the Australian Capital Territory and in other territories except the Northern Territory which assumed educational responsibilities in 1978. School attendance is compulsory between the ages of six and 15 years of age, 16 in Tasmania. Most Australian children also attend preschool sessions within the school system.

Approximately 23 percent of students attend nongovernment schools which are mostly Roman Catholic. The nongovernment schools are required to be registered and must meet certain standards.

A recent trend has been the increasing number of students, particularly boys, remaining in school beyond the compulsory age. The trend is due to the need for higher qualifications to meet most job requirements, the expansion of higher education opportunities, and high youth unemployment.

Students wishing to go to a university or other post secondary institution complete five years of high school (i.e., two years beyond the compulsory education). Entry is usually based on results of a final school examination.

Primary and secondary education are both compulsory and free. In addition, financial help is available to assist students especially at the secondary level. Transportation subsidies are provided to give students free or reduced-rate transportation to and from school. For students living too far from a secondary school to allow daily travel, some states provide hostels or pay boarding fees. Correspondence schools and schools of the air are also provided for students who live in remote areas or who are unable to attend class. Special programs are provided for migrant, refugee, and handicapped students. In addition, for Aboriginals and Torres Strait Islanders, the Australian government provides grants to promote access to educational facilities and to support special services and programs.

Higher education has expanded rapidly in the last 20 years. In 1980, over 160,000 students attended 19 universities; 159,000 students attended 71 colleges of advanced education. However, enrollments are not expected to continue to increase.

Technical education institutions offer training in major industrial skills and in a wide range of commercial, artistic, and domestic occupations. Adult education including vocational and nonvocational courses is provided at various institutions.

Religion

Types of religion practiced by Australians reflect the diverse backgrounds of the people. Aborigines had developed complex spiritual and religious beliefs before the arrival of the Europeans. Many traditional Aborigines continue to practice this type of religion while others have been converted to Christianity. Aborigines living in urban centers are less likely to follow traditional religious beliefs.

In the 1976 census, 98.9 percent of Australians who indicated a religious belief stated they were Christians. More than one million persons stated they had no religion. Of those professing a faith, 36 percent were Anglican; 33 percent, Roman Catholic; 18.3 percent, Uniting Church (a union of Methodists and Presbyterians); 3.8 percent, Orthodox; 1.8 percent, Lutheran; and 1.6 percent, Baptist.

The non-Christians include Jews, Moslems, and Buddhists. Similarities to Chinese faiths are found in the Joss Houses of some cities such as Darwin.

Symbols

The Australian Flag

The flag of Australia is the only flag to fly over an entire continent.

During the 19th century, the Union Jack of Britain flew over Australia. From the middle of the century, growing Australian nationalism brought forward many unofficial flags--all of them incorporating the constellation of the Southern Cross (Crux Australis).

When the six Australian colonies federated to form a single Commonwealth in 1901, the Union Jack was no longer suitable. The Australian government sponsored a competition for a flag design, and approximately 32,000 entries were submitted. The five almost identical designs were given equal first-place awards. Apart from later changes in the size of the stars and the number of points, they produced the present Australian flag.

The flag consists of a blue field with the red and white Union Jack, a seven-pointed star standing for the Commonwealth, and the five stars of the Southern Cross. Of the five stars of the constellation, four have seven points and the smallest one, five points. All stars are white.

Coat of Arms, Emblems, and National Anthem

Australia's coat of arms was granted by King George V in 1912. It consists of a kangaroo, an emu, and a shield containing the badges of the six Australian states enclosed by an ermine border signifying federation. Above the shield is a seven-pointed star for the Commonwealth. Usually, the arms are adorned with wattle and a scroll bearing the word "Australia."

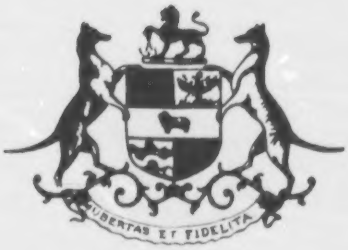
The Commonwealth of Australia has never adopted an official motto or national colors, flower, animal, or bird. By tradition, however, the golden wattle, kangaroo, and emu are widely accepted as national emblems. After federation, the colors red, white, and blue were accepted as representative of Australia on patriotic occasions. Inherited from the Union Jack of Great Britain, they are the colors of the Australian flag. In international sports, Australian teams have usually worn green and gold. However, the government has sometimes favored blue and gold, two of the colors of the coat of arms.

Each state also has a coat of arms. On Queensland's is the motto, "Audax at Fidelis" (Bold, Aye, but Faithful Too). New South Wales' coat of arms is inscribed, "Orta Recens Quan Pura Nites" (Newly Risen, How Bright Thou Shinest). Victoria's coat of

The National flag

Coats of arms

Australia



Tasmania

Northern Territory

Queensland

South Australia

ORTA · RECENS · QUAM · PURA · NITES

New South Wales

Western Australia

Victoria

For the Queen, the Law and the People

Australian Capital Territory

arms, granted in 1910 by King George V to the state that bears his grandmother's name, reads "Peace and Prosperity." Tasmania's motto, "Ubertas et Fidelitas" (Productiveness and Faithfulness), is on its coat of arms while South Australia's is inscribed, "Faith and Courage."

The distinctive emblem of Western Australia had its origin in the closing years of the 17th century. A Dutch sea captain discovered black swans, then unknown to the world, and named the Swan River. Today, the state's coat of arms features the black swan and bears the motto, a Latin pun, "Cygnis Insignis" (Distinguished by its Swans).

The first coat of arms of the Northern Territory was approved after the territory was granted self-government in July 1978. It contains Aboriginal motifs. The official colors of the territory are those of its flag: black, white, and ochre, the basic colors used in Aboriginal painting.

The coat of arms of the Australian Capital Territory originally bore the motto, "Pro Rege, Lege et Grege" (For the King, the Law, and the People). When Queen Elizabeth II succeeded her father King George VI, the word "Rege" (King) was changed to "Regina" (Queen).

All of the states' flags include the Union Jack and the state's badge except the Northern Territory. It bears a stylized version of the state flower, Sturts Desert Rose.

Australia uses "God Save the Queen" for regal occasions and the national song "Advance Australia Fair" on all other occasions.

The Arts

Australians have always shown a strong interest in writing. One early writer was Charles Harper, the son of a convict. A nationalistic writer, he influenced successive generations of writers such as Henry Kendall and Lindsay Gordon. They were the forerunners of Australians who wrote popular ballads about life in the bush and outback. Foremost among the bush balladists was A. B. (Bango) Patterson and Barcroft Boake. Their stories, evoking the feel of early outback experiences and the pioneering spirit, are still popular. Henry Lawson followed in the bush ballad tradition, his poetry, ballads, and short stories telling of life in the desolated countryside during the 19th century.

In the 1920s and 1930s, Australian poetry was influenced by English writers such as T. S. Eliot. Since the end of World War II, Australian writers--particularly the young poets--have been concerned with social problems and universal themes. An Australian novelist and short story writer, Patrick White, won the Nobel Prize for Literature in 1973.

Australian music and musicians in both the popular and classical modes have become recognized throughout the world for their quality and expertise. Popular musicians such as Olivia Newton John have become international stars.

Australia has eight professional symphony orchestras, a national ballet company, and a national opera company. In addition, most states have a small professional opera company, and there are regional ballet companies.

Australia was one of the first nations to develop a film industry; early silent films such as "Ned Kelly" are now widely acclaimed. However, the industry faded in the 1940s and 1950s.

In 1970, the film industry was revitalized by the establishment of the Australian Film Commission. As a result of the work of the Commission and government incentives in funding and tax concessions, the Australian film industry is now strong. Among the more successful films have been "Picnic at Hanging Rock," "Storm Boy," "The Getting of Wisdom," "My Brilliant Career," "The Chant of Jimmie Blacksmith," "Newsfront," "The Last Wave," "Breaker Morant," "Gallipoli," "Road Warrior," and "The Year of Living Dangerously."

Approximately 30 theater companies are active in the various states. Commercial theater organizations also provide musicals and plays and bring in overseas companies.

Aboriginal art has attracted renewed interest in recent years. The federal government helps Aboriginal communities to maintain and develop traditional cultural activities, sets up markets for works of art, and assists with educational programs. It also encourages conservation of Aboriginal arts and crafts to protect them from commercialization. Australia has had a significant school of painting since the early days of European settlement. Distinctive Australian characteristics in painting evolved toward the end of the 19th century with the work of artists such as Tom Roberts and Frederick McCubbin.

Today, a number of living Australian artists enjoy international reputations. The names of Fred Williams, John Olsen, and Brett Whiteley have been added to the list of established artists such as Sidney Nolan and Albert Tucker.

Throughout the arts, the federal government encourages the work of artists through the Australia Council. The Council advises the government on how best to give aid; the 1979-80 budget for governmental assistance was $26 million. Numerous other organzations, such as the private Arts Council of Australia and the public Australian Broadcasting Commission, also encourage the arts.

Media

The principles of free speech and freedom of the press are established in Australia. Government regulations are confined to setting standards for the proportion of advertising in commercial radio and television programs, the classification of films and TV programs to indicate suitability for young audiences, and prescribing the proportion of local content in broadcasting. The latter is designed to guarantee a reflection of the Australian way of life and employment opportunities for Australian producers, writers, and others.

In radio and television, the federal government provides most of the operating revenue for the Australian Broadcasting Commission (ABC) which has a national, noncommercial radio and television network. The ABC is protected by safeguards to prevent political interference and to protect its independence. The ABC coexists with privately owned commercial radio and television stations providing diversity and choice.

As for print media, Australia has a thriving metropolitan and rural press virtually free of government restriction or censorship. Capital city newspaper circulations are proportionately among the highest in the world.

There are about 600 newspapers published in Australia including major dailies, major Sunday newspapers, and more than 350 newspapers published outside state capitals. A national daily, The Australian, began publishing in 1964.

Australian newspaper editors are free to print anything they choose within the bounds of the laws of libel and certain requirements covering reporting of judicial and Parliamentary processes. These requirements are designed to preserve the authority of the courts and the rights of litigants.

Most major newspapers are owned by large public companies which also have substantial interests in commercial radio and television. The foreign language press is growing in volume and circulation, and the suburban press is also significant in major cities.

Sports

More than a third of the country's population is actively and enthusiastically involved in sports. Australians are encouraged to participate in sports by programs that start in primary school.

A significant influence on the wide range of sports played in Australia was the large migrant influx of the 19th and mid-20th centuries. Early British settlers brought with them the traditional sports of cricket, tennis, rugby, golf, running, and horse racing, sports which still thrive in Australia today. Other sports such as squash, netball, basketball, martial arts, gymnastics, and skiing have grown steadily, in some cases spectacularly, in recent years.

One of Australia's few indigenous sports is Australian rules football, a mixture of Gaelic football and rugby. Australian rules football is the most popular spectator sport in the country.

Hot summers and a largely sandy coastline have made water sports favorite Australian pastimes. There are large numbers of persons who enjoy yachting, motor boating, surfboard riding, and fishing. At the international level, Australians' success in swimming is second only to their success in tennis. A long line of Australian swimmers has won the gold medal at Olympic Games.

In tennis, Australians won the Davis Cup 15 times in 20 years, beginning in 1950. In addition, Australians such as John Newcombe and Rod Laver won the Wimbledon men's singles 14 times between 1952 and 1971. Top women players are Margaret Court, who won at Wimbledon three times, and Evonne Cawley (Goolagong), also a Wimbledon winner.

Cricket is considered the national game and is played in every state during the summer. Regular "tests" are held with England, India, Pakistan, the West Indies, and New Zealand.

Australia is renowned for its interest in horse racing. Each year hundreds of millions of dollars in bets annually pass through the government-authorized Totalisator Agency Boards in each state and territory. Much of this money is passed back to racing clubs and other sporting bodies to help in capital development and in the promotion of their sports. The Melbourne Cup held every November is Australia's most famous horse race.

Parks and Reserves

Throughout the continent there are natural features that annually attract thousands of tourists. These include Ayers Rock in Central Australia, the world's largest monolith which rises spectacularly from the surrounding flat desert. Nearby are the Olgas, another group of remnant hills.

The Great Barrier Reef, one of the seven natural wonders of the world, is off the east coast. It is a coral system over 2000 kilometers long. The largest mass of coral in the world, the Reef contains 400 varieties of coral in a rainbow of colors and strange shapes. Prolific animal life, including intricately decorated turtles and bright tropical fish, lives in the Reef. Its future is carefully protected by the Great Barrier Reef Marine Park Authority, a government agency.

A recently designated national park is the Kakadu National Park east of Darwin in the Northern Territory. Kakadu is one of the world's few surviving wilderness regions, a natural paradise. It will eventually cover 12 000 square kilometers.

The region has two seasons, the wet and the dry. The contrast of landforms in the Park is just as dramatic as the seasons. Within a day's walk, mangrove swamps give way to treeless tidal flats, then to freshwater lagoons, forests of paperbark, and woodlands of eucalyptus. Then suddenly, there is the escarpment. This great mountain edge winds 1145 kilometers in wildly contorted cliffs, ravines, and caves. The heavy rain creates hundreds of spectacular waterfalls. Although many of these vanish during the dry season, 17 permanent falls remain.

There is an astonishing variety of bird life and native mammals, reptiles, frogs, and freshwater fish. A particularly noteworthy fish is the silver barramundi which lives in fresh, salt, or brackish water. It has an excellent flavor and texture, is not hard to catch, and is fished for both sport and commerce. Park animals range from kangaroos, wallabies, and possums to diminutive rat kangaroos and marsupial mice.

The estuarine crocodile--the only man-eating creature found on land in Australia--reaches a length of 10.75 meters; the freshwater species is smaller and harmless.

Snakes are plentiful, especially pythons, and there is a great variety of lizards. These are everywhere and in all shapes and sizes. Freshwater tortoises abound in streams and small lakes which Australians call "billabongs"; large turtles are found in coastal waters.

Aborigines have occupied Kakadu for at least 25,000 years. Hundreds of rock painting sites contain probably the most extensive and significant primitive art in existence in the world.

In contrast to Kakadu is the sub-Antarctic park at Macquarie Island. This unusual and spectacular national park and wildlife reserve is 1770 kilometers south of the Australian mainland. On the island are king and royal penguins, sea elephants, leopard seals, and sea lions.

The government maintains these and other parks for the enjoyment of Australians and visitors.

APPENDIXES

APPENDIX A

Australia Decade by Decade: A Summary

1788-1800

The first settlement in what was to become Australia was established as a penal colony. Beginning in 1792, the officers of the New South Wales (NSW) Corps gained a stranglehold over the economy of the colony.

1801-1810

The governors that were sent to the colony failed to curb the power of the NSW Corps. Governor Bligh crossed swords with them and was deposed. The NSW Corps had effective control of the colony until the arrival of Governor Macquarie.

1811-1820

Governor Macquarie's regiment replaced the NSW Corps. The character of the colony began to change from a penal settlement to a civil colony, and its purpose as a jail was questioned. Commissioner Bigge was sent out to investigate. The free settlers believed they should be given special privileges; they resented Macquarie's acceptance of freed convicts (emancipists) on the same level as themselves. Explorers began to open up the lands beyond the mountain barrier.

1821-1830

The powers of the governor began to be restricted. Institutions were created that gave the settlers some say in how the colony was to be ruled, but only a few settlers were involved. Explorers continued to penetrate beyond the mountain barrier; settlers followed.

1831-1840

Squatters began to run sheep on the rich, newly found grazing lands. The wool from the sheep was sold on the English market, and prosperity came to the squatters. Because of a severe shortage of labor, various schemes were devised to attract workers to immigrate to the new colonies. The settlers campaigned for an end to the transportation of convicts and for a greater say in the government of the colonies.

1841-1850

This was a period of consolidation. In 1840, transportation of convicts to NSW was ended. This allowed NSW to be regarded as a free settlement. In 1842, NSW achieved representative government. By 1850, South Australia and Van Dieman's Land had also obtained representative government; Victoria followed in the next year. The colonies had by this time a good deal of self-government, and colonists were able to make many decisions for themselves without reference to the British colonial secretary.

1851-1860

The discovery of gold gave the Australian colonies a tremendous boost. Gold brought wealth to the colonies and attracted hundreds of thousands of immigrants, most of whom became permanent settlers. They brought with them the democratic ideas that were current overseas, particularly in industrialized Britain. By the middle of the decade, four of the Australian colonies had achieved responsible government.

1861-1870

Surface gold ran out on the Victorian goldfields, and many people turned from mining and looked for other work. An urgent problem was finding employment for the hundreds of thousands of people. Many wanted small farms for raising crops, but the squatters had control of much of the best land. A battle developed over the unlocking of the land.

1871-1880

A continuing problem was how to absorb the greatly increased population. The struggle for land continued. Small industries were developing. The different colonies went their own ways, with strong rivalry between them rather than cooperation. Victoria and NSW adopted opposing economic policies with Victoria favoring protection of its industries and NSW favoring free trade.

1881-1890

The development of the railways and of the telegraph helped to break down the barriers between the colonies. Gradually, people began to think in terms of a single country instead of separate colonies. They realized that problems such as defense and immigration would be easier to handle if there were unity rather than division.

1891-1900

When an economic depression struck early in the decade, the economic progress of the colonies received a severe setback. Immigration halted and industrial growth stood still. By the second half of the decade, as the colonies emerged from the crisis, attention was concentrated on the question of federation. After one unsuccessful attempt, referendums in favor of federation were passed in all the colonies; the British parliament agreed to the creation of the Commonwealth of Australia.

1901-1910

The Chinese immigrant problem was dealt with through the Immigration Restriction Act which introduced the White Australia Policy. Other laws affected the future social and economic well-being of the country. For example, Australia was the first to have a basic (minimum) wage fixed by law. Political parties competed for power. The main issue in politics was non-Labor versus Labor; eventually, two non-Labor parties merged to form the Liberal Party and oppose the ALP (Labor) Party.

1911-1920

World War I dominated the decade. Over 300,000 Australian troops went overseas and took part in the Gallipoli campaign, the Palestine campaign, and the fighting in France. The political parties were united to win the war, but a serious argument arose over conscription. The ALP (Labor) Party split on the issue; its leader, William M. Hughes, joined the Liberals to form the Nationalist Party. After the war, Australia was accepted as being independent of Britain and became a member of the League of Nations.

1921-1930

Australia was mainly governed by a coalition of the Nationalist Party, led by Stanley M. Bruce, and the Country Party, led by Earle Page. Pioneering air flights, radio, and telephone narrowed distances both internally and externally. In 1927, the new Parliament House was opened; Canberra became the nation's capital. In the same year, an important financial agreement between the Commonwealth and the states laid down the rules for borrowing money. Economic conditions worsened by 1930. The election of 1929 brought the ALP to power in a landslide victory.

1931-1940

This was a decade of fierce political conflict both in Australia and throughout the world. The great economic depression affected all sectors. The people and the politicians tried in vain to handle the economic crisis. The ALP which was in power at the beginning of the decade split over the issue. Joseph A. Lyons and a number of others left the ALP and joined with the Nationalists to form the United Australia Party. Lyons became prime minister in 1931 and remained in leadership until his death in 1939. For most of the time, the UAP was supported by the Country Party led by Page. By the end of the decade, Australia was again at war.

1941-1950

Until 1945, Australia was completely involved in World War II. The threat of Japanese invasion was warded off with the aid of American troops. In this was laid the basis for the Australian-US alliances of the postwar period. Australia's dependence on Britain in foreign affairs and defense matters decreased. From 1941 to 1949, the ALP governed Australia. John Curtin was prime minister until his death in 1945; Ben Chifley continued as Labor prime minister until the defeat of the ALP by the newly formed Liberal Party led by Robert G. Menzies. During the postwar years, the main concerns were to repatriate and demobilize the army and to establish a peacetime economy. At the same time, a massive immigration program began.

1951-1960

Australia was governed by the Liberal Party in coalition with the Country Party; Menzies was prime minister until his retirement in 1966. This was a period of cold war, and the Australian government joined with the United States in promoting and forging anticommunist alliances in southeast Asia. Internally, communism was a major issue of the decade; the Democratic Labor Party was formed as an anticommunist organization. The split in the ALP made it easier for the coalition parties to retain power.

1961-1970

A severe economic recession started this decade. The coalition narrowly won the 1961 election with a majority of one in the House of Representatives. The 1960s were Australia's golden years; for most of the decade there was an economic boom. There was an upsurge of production; unemployment was at its lowest. Important mineral deposits were discovered, and Australia became a major international supplier of many minerals. Early on, Australia became involved in the Vietnam war in support of the United States. Conscription for 18-year-old men for overseas service was introduced. Harold E. Holt succeeded Menzies as prime minister in 1966 and won a landslide election on the Vietnam issue. Holt died the following year and was succeeded by John G. Gorton. By 1970, public opposition to Australia's involvement in Vietnam was growing.

1971-1980

Early in the decade, the golden economic years suddenly collapsed. The world economic recession and massive world inflation were mirrored in Australia. Inflation rates and unemployment figures rose to high levels. Prime Minister Gorton resigned in 1971 and was succeeded by William McMahon; however, in 1972, the ALP regained office after 23 years in opposition. The new prime minister, Gough Whitlam, immediately ended Australia's participation in the Vietnam war, stopped conscription, recognized China, and expanded social welfare programs. The government was beset by factionalism and scandal and hindered by a hostile Liberal-County Party majority in the Senate. A crisis developed in 1975 when the Senate refused to pass a money bill. The crisis was resolved when the governor general suddenly dismissed Whitlam and forced a new election. The Liberal Party under J. Malcolm Fraser had a landslide victory and won further elections in 1977 and 1980. Australia entered the 1980s with increased unemployment, reduced inflation, and a boom in investment linked to mineral development.

APPENDIX B

Timeline of Important Events

40,000- 30,000 BC	First Aborigines reach Australia. Remains left in Lake Mungo, New South Wales show Aborigine culture there 30,000 years ago.
22,000 BC	Flint making and drawings done in caves at Koonalda, SA.
1606 AD	Willem Jansz visits Gulf of Capertana (first authenticated European landing).
1770	Captain Cook discovers east coast and lands at Botany Bay, New South Wales.
1788	Sydney founded by Governor Phillip (first European settlement).
1803	Hobart founded.
1804	Brisbane founded.
1808	Rum Rebellion.
1829	Perth founded.
1835	Melbourne founded.
1836	Adelaide founded.
1840	Decision made to end transportation of convicts to New South Wales. Brisbane founded.
1851	Gold discovered (great influx of people). Victoria founded as separate colony.
1859	Queensland founded as separate colony.
1861	Burke and Wells cross continent from south to north.
1862	Stuart crosses continent from south to north.
1868	Last convict ship arrives.
1869	Darwin founded.
1877	First cricket test played between Australia and England; Australia wins.
1899	Australia participates in the Boer War in South Africa.
1901	January 1, federation of states into Commonwealth of Australia is accomplished.
1907	Dominion status achieved.
1913	Capital at Canberra is officially founded. Walter Burley Griffin (of United States) designs the city's plan.
1914-18	Australia participates in World War I.
1915	ANZACS land on beaches at Gallipoli (ANZAC = Australia New Zealand Army Corps).
1920	Australia joins League of Nations.
1927	Federal parliament moves from Melbourne to Canberra.
1928	Charles Kingsford Smith and Charles Alm cross Pacific by air in 10 days.
1929-33	Economic depression severely affects the country.
1930	Isaac Alfred Isaacs, first Australian-born Governor General, takes office.
1932	Sydney Harbour Bridge opens.
1933	Australian Antarctic Territory created.
1939-45	Australia participates in World War II.
1942	Darwin destroyed by Japanese. General MacArthur sets up US South West Pacific headquarters in Melbourne.

1947-74	Major planned immigration brings in three million persons.
1951	ANZUS Treaty signed.
1952	Australia participates in Korean War.
1954	SEATO founded.
1960s	Major mineral boom seen in NW Australia.
1966	Decimal currency introduced.
1967	Aborigines become part of the "numbers of people of the Commonwealth or of a State or other parts of the Commonwealth."
1969	Big nickel find announced; stock exchange gamble reaches new heights.
1972	Australian involvement in Vietnam ceases.
1973	Sydney Opera House opens.
1975	Papua New Guinea gains independence. Whitlam government sacked by governor general creating major constitutional crisis.
1977	Liberal-Country Party wins election.
1979	Inflation reduced. Unemployment up, government sector reduced.
1980	USSR boycotted over Afghanistan invasion. Liberal-Country Party returns to power again.
1981	Uranium production at Narbarlek commences. Wage indexation ceases.
1982	Large foreign investments tied to resource development.
1983	Labor Party wins election. Australia wins the America's Cup sailing competition (first victory).

APPENDIX C

Gold

(NOTE: The following is an edited version of an article by Geoff Morris in Australia Today. Volume 9, Number 1, 1981.)

The gold town of Kalgoorlie took root in some of the driest country on the Australian continent. Either by chance or intuition, the early prospectors named it after a fruiting vine (called "Kalgurli" by the Aborigines) which grows wild in the region. In its 88 years, Kalgoorlie has proved just as hardy as the vine.

The langscape around Kalgoorlie is semidesert dotted with dry salt lakes. It can be cruel until you start to dig. The geology makes it some of the most valuable real estate in the world.

Kalgoorlie sits at the heart of Australia's prime gold and nickel belts 600 kilometers east and inland from the Western Australian state capital, Perth.

Most other gold towns became ghost towns long ago. There were times when Kalgoorlie could have become the biggest ghost town of all. Water and food shortages and poor sanitation brought typhoid and dysentery in the early years, followed by some long periods of unattractive gold prices. All of these thinned the town. Kalgoorlie was undaunted and rode out each depression until the next boom.

Another boom always came. In the 1980s it is gold again.

There is activity again on the famous Golden Mile where two big mines have come out of mothballs. These two and Mount Charlotte have combined proven and probable reserves of 14 million tonnes of ore which could yield something like three million ounces of gold. The higher gold prices could lead to the opening or reopening of a dozen major mines in the region.

The land around Kalgoorlie is riddled with gold and honeycombed with the shafts of miners seeking it. Mount Charlotte's headframe dominates the skyline at the top of the main street. The Golden Mile starts a few kilometers out of town. A popular theory says that an equally rich extension of the Golden Mile runs under Kilgoorlie at considerable depth. Mining companies, willing now to spend money testing the theory, have pegged the entire town site--hospital, racecourse, Mines Department office, residential blocks--in the latest rush. Government authorities who protect the town and its residents from indiscriminate mining are allowing drilling at selected sites. If the extension is found, they could conceivably have to move the whole, or part, of Kalgoorlie.

On a smaller scale, prospectors are reworking old diggings, often for the third time, and making a good living. The early miners left a lot of gold in the ground and in the tailings.

Kalgoorlie is a town of wide streets and old-style buildings with wooden and wrought-iron balconies overhanging the footpaths. The planners built the streets wide to handle the heavy flow of miners' wagons and camel trains. The camels, often 100 to a team and led by Afghan drivers, brought miners their supplies before the railway came to Kalgoorlie in 1896. They continued to be important for many years after that. Modern transportation systems ended Kalgoorlie's remoteness. It is now an hour by air from Perth and six hours by paved road. It is on the transcontinental railway and highway that link Australia's east and west.

The town started in 1893 when a wiry, bearded Irishman named Paddy Hannan and two compatriots, Tom Flannigan and Daniel Shea, found alluvial gold near the present Mount Charlotte mine. In a few days they collected 110 ounces of nuggets; the subsequent rush was the biggest of many around the state. Prospectors flocked to Hannan's find by camel, horse, coach, and cart and on foot pushing wheelbarrows. Within a year, 10,000 were camped in tents and makeshift huts.

Nuggets were easy to find in the early years, but as they grew scarcer many miners drifted away. Others realized there was fine gold imprisoned in extensive quartz reefs southeast of town. They dug in and brought to life the Golden Mile, one of the world's top three gold-producing areas. In fact, the name Golden Mile is an understatement; the wide, deep reefs are twice that length.

Companies formed and recruited large work forces to exploit the reefs. By 1903, there were 30,000 people in Kalgoorlie and its twin town, Boulder, which had sprung up a few kilometers away, and they had produced nearly 57 tonnes of gold. The fledgling industry had dramatic effects on the state's economy and population which leapt from 48,500 in 1890 to 285,000 in 1910. So far, the fields have yielded more than 1500 tonnes of the precious metal.

The gold was not won easily. Many miners died from disease and contaminated water. The summers brought heat and flies, and there were fierce dust storms. Frequent fires wiped out whole blocks of tents and shacks. The overriding problem was water. Kalgoorlie is in a riverless region which averages a scant 263 millimeters of rain a year. The land quickly soaks up what rain falls.

Enterprising businessmen carted water to the goldfields and sold it for 25 cents a bucketful until a government engineer found a solution. Under the engineer's direction, workmen laid a 554-kilometer pipeline to carry water to Kalgoorlie from Mundaring Weir in the hills outside Perth. The pipeline was completed in 1903 and remains the goldfields' main source of water, stretching across the parched land like a giant umbilical cord 762 millimeters in diameter. The first water took months to arrive in Kalgoorlie. Now the journey takes about 10 days with the help of pumping stations along the way.

Beer and whiskey were easier to find than water. Kalgoorlie and Boulder supported eight breweries and 93 hotels by 1902 to satisfy the thirsty miners. They wanted to "let off steam" after a day at the diggings.

Nowadays, Kalgoorlie is a quieter place: the main street, Hannan, bears the little prospector's name. Outside the Town Hall, his bronze statue offers passersby a drink from a water bag.

Kalgoorlie has been the home since 1903 of the Western Australian School of Mines where geologists, technicians, engineers, and metallurgists learn their trades. Many of its graduates have come from other countries to study.

The metal detector has caused a prospecting revolution in Kalgoorlie. It can locate nuggets (and tin cans and other junk metal) that are close to the surface. In July 1980, a retired husband and wife team searching for remains of the crashed US Skylab spacecraft homed in instead on a 419-ounce gold nugget only 12 centimeters below the surface. It is the biggest nugget found in Western Australia since the 1,135-ounce Golden Eagle was dug up near Kalgoorlie in 1931. Another couple, also using a detector, found a 320-ounce nugget. Such nuggets are usually sold privately for undisclosed sums. Buyers pay much more than the world price for gold in nugget form. But for every prospector who finds a nugget there are scores who do not.

Anyone who wants to prospect for gold must get a license called a Miner's Right form the Mines Department. It costs 50 cents and lasts a lifetime. The number of Miner's Rights issued by the Kalgoorlie office jumped from 1,600 in 1978 to more than 5,000 in each of the past two years. The number of pegged gold leases rose from 220 in 1978 to more than 700 in 1980.

Small mine operators without crushers can take their ore to the State Battery which recovers the gold for them. The state crushers work three shifts a day but cannot keep pace with the demand.

The town's past and the lure of gold combine to make it a natural haunt for the many tourists in the town every year. They stay an average of three days, which gives time to explore for gold and take in some of the ghost towns. There are many within easy reach of Kalgoorlie.

Coolgardie, 40 kilometers to the southwest, is the biggest and most famous. Established in 1892, it once had 15,000 people, two stock exchanges, three breweries, and six newspapers. Now it has only 600 people and a lot of memories. Kanowna is the most remarkable; it was a thriving town of 12,000 in 1905 with 16 hotels and hourly train service to Kalgoorlie. Today, nothing remains but rubble and old diggings.

Kalgoorlie, living up to its name, was more resilient.

APPENDIX D

The Loneliest Gas Field in the World

(NOTE: The following is an edited version of an article by Geoff Morris on the North West Shelf Project that originally appeared in Australia Today. Volume 5, Number 9, 1979.)

Far below the cyclone-prone waters which wash the northwestern coast of Australia lie huge reservoirs of energy in the form of natural gas. Their origin goes back to the Mesozoic era of 60 billion years ago--the Reptile Age when dinosaurs were dominant and birds were just beginning to evolve.

At that time, deposits of organic matter--animal and plant life--accumulated on what is now Australia's submerged northwest continental shelf. Over the following millions of years, the earth's outer layers formed over the deposits, applying pressure and heat. The organic matter decomposed and formed gas which permeated surrounding beds of coarse sandstone until it reached the layers of impervious rock that now form the walls of the reservoirs. There it stayed until modern humans came along with their seismic surveys, computers, drill ships, and constant need for more energy and fuel.

The biggest of four reservoirs found in the North West Shelf region is the North Rankin field where gas-saturated sandstone beds cover 50 square kilometers and have a thickness of 300 meters. North Rankin holds an estimated 243 626-million cubic meters of gas, more than one-quarter of Australia's known gas reserves. The three other fields may hold as much again.

A consortium of Australian and international companies is now on the point of harnessing North Rankin's gas for home and export markets in the largest natural resource development undertaken in Australia. The development cost will be more than $3 billion.

The Premier of Western Australia, Sir Charles Court, has described the North Rankin gas field as "the loneliest gas field in the world." It is under the Indian Ocean 130 kilometers out from the iron-ore port of Dampier and nearby Withnell Bay. To tap the gas, a drill pipe must be lowered 130 meters to the ocean floor, followed by drilling about three kilometers down through the Shelf to the reservoir.

The ocean above the reservoir is treacherous. Tropical cyclones have roared suddenly out of the north and swallowed boats and crews without a trace. The coastline is strewn with ancient wrecks which ran afoul of cyclones and reefs. Cyclones whip up waves 23 meters high, and winds reach 250 kilometers per hour. Local residents can count on two or three cyclones a year. In 1973, there were seven. One of them, called Kerry, nearly wrecked the drilling rig Big John, a 107-meter barge, and cost $1,014,000 in damage and lost time. John was moored with eight 10 400-kilogram anchors on 800-meter long steel cables, each 57 millimeters in diameter. A solid anchorage, but Kerry snapped six of the cables and flooded much of the interior in a five-hour "blow" one night. Altogether that year, cyclones disrupted operations for 124 rig days at a cost of $3 million.

Drilling rigs keep two operating manuals on board. One specifies drilling procedures; the other sets out safety measures in the event of cyclones. A cyclone more than 400 nautical miles away is not an immediate threat, but crew members watch it closely. If it moves inside this limit and heads for the rig, they push the "red alert" button. Under such emergency conditions, they seal the well at the ocean bed, disconnect it from the rig, and evacuate by helicopter. The rig is usually left at the mercy of the cyclone.

There are three priorities when cyclones strike: save lives, save the reservoir and the well, save plant and machinery. Cyclones often hit with little warning; then not everything happens according to the manual. Kerry was one of those. Time permitted the evacuation of only half the personnel. The other 38, one with a broken collarbone, huddled below deck in blacked-out living quarters throughout the night. In 12 years of drilling, cyclones have not caused any loss of life among the drilling crew. Three men have died in other circumstances--one as a diver and two others in surface accidents.

There are between 60 and 85 men on most rigs, from the scientists running hydrocarbon tests to the roughnecks sweating on the drill deck in 40 °C temperatures. Roughnecks are well paid. They have two weeks on the rig, working 12-hour days, then two weeks off work, apart from their four weeks annual leave. Life on a rig is almost monastic. It is strictly a men-only society; they cannot drink alcohol and cannot smoke during "discovery conditions." But they eat well, and sometimes the menu includes fresh fish hooked over the side of the rig.

The North West Shelf area remained untouched, except for fishing boats and pearling luggers, until the 1960s. In the 17th century, it was explored by Dutch and English navigators who were not impressed by its largely arid landscape. In 1963, a small Australian company, Woodside Oil, obtained oil search permits for an area of 367 000 square kilometers of ocean, the only land being some small island outcrops and snake-infested reefs. The area is about one and one-half times that of the British Isles and more than half the size of Texas. Woodside was working on a hunch based on extrapolation of onshore geology. It could only guess at the geology of the Shelf. Hydrographic maps were of little use, many of them based on surveys as far back as 1818. There was little information on ocean floor conditions, meteorology, or oceanography.

Woodside virtually began from scratch. Its cartographers produced excellent maps of the Shelf, and their aeromagnetic survey and seismic exploration gave good geological pictures. These indicated the presence of sedimentary rocks which are prerequisites for an oil-producing area. Armed with these data, Woodside attracted several partners; exploratory drilling began in 1967. They did not find commercial oil, but there was gas to burn. In 1971, they found the Scott Reef, North Rankin, and Goodwyn Fields; in 1972, the Angel Field.

The joint venturers reached agreement with the Australian government and the Western Australian state government in 1977 on terms for development of the gas from the North Rankin reservoir.

North Rankin presents unusual problems because of its remote location, lack of any associated oil production, and the inhospitable climate and working environment. But North Rankin looks like it will be the forerunner of a series of natural gas developments on the North West Shelf. Other fields have been proven and exploration companies are daily extending the search.

APPENDIX E

Bibliography

Publications

(NOTE: Booklets and information sheets are available from the Australian Embassy in Washington, D.C. For address, see Appendix F. In addition to the publications below, the Texas Education Agency has a list of materials available for loan to teachers.)

Alexander, F. Australia Since Federation. Sydney: Nelson, 1969.

Allen, George. State of Play: An INDECS Economics Special Report. Darwin: 1980.

Bereson, Itiel, and Rosenblat, Simon. Inquiry Australia. Australia: Heinemann Educational, 1979.

Conway, R. The Great Australian Stupor: An Interpretation of the Australian Way of Life. Melbourne: Sun Books Pty. Ltd., 1971.

Coppell, W.G. Australia in Figures. Australia: Penguin Books, 1981.

Courie, H.R. Crossroads 2: Asia and Australia in World Affairs. Melbourne: Nelson, 1980.

________ . Crossroads 3: Asia and Australia in World Affairs. Melbourne: Nelson, 1980.

Davidson, R. Migrants. Melbourne-Sydney: Lothian, 1979.

Dortch, C.E. Devil's Lair: A Search for Ancient Man in Western Australia: Western Australia Museum Press.

Education, Lands, and Surveys Department of Western Australia. Western-Australia: An Atlas of Human Endeavor, 1829-79. Western Australia: Government Printer, 1979.

Ethnic Communities Council of NSW. I'm an Australian, Too! Sydney: The Council, 1979.

Fabian, Sue. The Changing Australians: A Social History. Sydney: Figby, 1978.

Fabun, D. Australia 2000. Sydney: Cassell Australia, 1974.

Gunther, I. Inside Australia. New York: Harper and Row, 1972.

Hoog, J.K., and Sherwood, J. Working With Aborigines in Remote Areas. Perth: Mt. Lawley College, 1979.

Horne, D. The Lucky Country. Melbourne: Penguin Books, 1965.

Jacaranda Press. Society in View: A Graphic Atlas for the Social Sciences. Queensland: The Press, 1978.

Johnson, R.J. The New Zealander: How They Live and Work. New York: Praeger, 1976.

Laidlaw, R. The Land They Found. Melbourne: Macmillan, 1979.

Learmonth, A.M. The Australian: How They Live and Work. New York: Praeger, 1973.

Leeper, G.W., ed. The Australian Environment, 4th ed. Melbourne: Commonwealth Scientific and Industrial Research Organization and Melbourne University Press, 1970.

Mathew, J. The Two Worlds of Jimmie Booker: The Life of An Australian Aboriginal, 1900-72, As Told to Janet Mathew. New South Wales: Southwood Press, 1977.

Mirritji, Jack. My People's Life: An Aboriginal's Own Story. Melbourne: Dominion Press, 1976.

Mountford, C. I, The Aboriginal. Adelaide: Rigby, 1965.

Mulvary, D.J. Aboriginal Prehistory. Australia: Nelson, 1970.

Reader's Digest. Reader's Digest Atlas of Australia. Sydney: Reader's Digest Services Pty. Ltd., 1977.

Robinson, K.W. Australia, New Zealand, and the Southwest Pacific. London: University of London Press, 1960.

Slinger, Bob. Edited by Lesley Zuber. Decisions: The Process of Government in Australia. Melbourne: Nelson, 1979.

Films

Film Australia has a comprehensive list of suitable films that are available to borrow or purchase. For details, contact the Australian Information Service in New York City. (For address, see Appendix F.)

APPENDIX F

Selected Addresses

The Australian Embassy
1601 Massachusetts Avenue, NW
Washington, DC 20036

Australian Tourist Commission
3550 Wiltshire Boulevard
Los Angeles, CA 90010

or

1270 Avenue of the Americas
New York, NY 10020

New South Wales Government Office
2049 Century Park East
Los Angeles, CA 90067

Australian Consulate General
111 East Wacker Drive, Suite 2212
Chicago, IL 60601

or

3550 Wiltshire Boulevard
Los Angeles, CA 90010

Australian Information Service
636 Fifth Avenue
New York, NY 10020
(212) 245-4000

APPENDIX G

Aboriginal Addresses

The following are agencies, institutions, newspapers, etc. in Australia that can be contacted concerning Aboriginal affairs:

Aboriginal and Islander Forum
Aboriginal Publications Foundation
GPO Box M931
Perth, Western Australia 6001

Aboriginal Health Worker
The Editor
Prince Henry Hospital
Little Bay, New South Wales 2036

Aboriginal Human Relations Newsletter
The Editor
25 Northcote Street
Armidale, New South Wales 2350

Aboriginal News
Department of Aboriginal Affairs
PO Box 17
Woden, Australia Capital Territory 2606

Black News Service
Black Resource Centre Collective
PO Box 345
North Brisbane, Queensland 4000

Central Australian Land Rights News
Central Lands Council
PO Box 1960
Alice Springs, Northern Territory 5750

Australian Institute of Aboriginal Studies
Canberra, Australian Capital Territory 2600

Australian Instructional Films Pty. Ltd.
PO Box 100
Mona Vale, New South Wales 2000

Aboriginal Legal Aid
55 Bath Street
Alice Springs, Northern Territory 5750

Chief Ministers Department Library
PO Box 4396
Darwin, Northern Territory 5794

Church Missionary Society
PO Box 32352
Winnellie, Northern Territory 5789
(for information about Roper, Oenpelli,
Angurugu Numbulwar, Umbakumba)

Conservation Commission Library
PO Box 1046
Alice Springs, Northern Territory 5750

Conservation Commission Library
PO Box 38496
Winnellie, Northern Territory 5789

Department of Aboriginal Affairs Library
PO Box 5025
Darwin, Northern Territory 5794

Film Australia
PO Box 46
Lindfield, New South Wales 2070

Katherine Historical Society
PO Box 93
Katherine, Northern Territory 5780

National Trust
C/-Rev. T. Fleming
25 Warburton Street
Alice Springs, Northern Territory 5750

National Film Collection
National Library of Australia
Canberra, Australia Capital Territory

National Trust
PO Box 54
Tennant Creek, Northern Territory 5760

New South Wales Film Council
190 York Street
North Sydney, New South Wales 2000

Northern Australia Legal Aid Service Inc.
11 Bennett Street
Darwin, Northern Territory 5790

N.T. Information Centre
PO Box 4396
Darwin, Northern Territory 5794

Northern Territory State Library
PO Box 39971
Winnellie, Northern Territory 5789

The Australian Museum
Film Division
6-8 College Street
Sydney, New South Wales 2000

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, Department of Health, Education and Welfare.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

END

DEPT. OF EDUCATION

NAT'L INSTITUTE OF EDUCATION

ERIC

DATE FILMED

SEPTEMBER

4 - 1984